EXHIBIT P1

EAST WHITELAND TOWNSHIP – ACT 537 PLAN DOCUMENTS
(1995 PLAN)

EAST WHITELAND TOWNSHIP

ACT 537 PLAN

Official Plan

Under the Pennsylvania Sewage Facilities Act

(P.L. 1535, No. 537)

Prepared for:

East Whiteland Township
Chester County, Pennsylvania

Prepared by:

Kohli and Associates, Inc.
Consulting Engineers, Planners & Landscape Architects
Malvern, Pennsylvania

Submitted: August 12, 1991
Last Revised: May 2, 1995
Adopted by the Township
Board of Supervisors: June 12, 1995

EAST WHITELAND TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN

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EAST WHITELAND TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN

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ACT 537 PLAN SUMMARY

Extending existing centralized sewer collection lines is considered to be appropriate for most of the Township, principally because of its accessibility and configuration of the sewage service areas as well as the possibility of degrading local streams is eliminated. Although central sewers export water from the service areas, however, an overriding issue is the fact that 72% of the Township is comprised of soils unsuitable for on-lot sewage disposal.

Public sewage collection and disposal facilities will be extended, as the need is determined, to all new development situated in Study Areas 1, 2, 3, 4, 5 and 6, as indicated on Figure 12, the Sewage Facilities Plan. Study Areas 1, 2 and 3 are to be served by public sewage collection facilities within five years. Study Area 4 is proposed to be served by 2001, while Study Area 5 is to be served by 2006. Study Areas 6 and 7 are envisioned to be served beyond 2006, although Study Area 7 could be served sooner with some alternate disposal method. Study Area 7A has also been considered by neighboring East Goshen Township for inclusion within its sewer system due to its location within the Ridley Creek Watershed. Study 7B is proposed to utilize a new treatment facility with stream discharge which must meet the recent "exceptional value" waters reclassification of the Valley Creek. Portions of Study Area 7B comprising of tracts zoned R-4 and R-1 are also being considered by neighboring West Whiteland Township for inclusion within its sewage treatment facility with disposal of effluent by spray irrigation on the property to be acquired from Church Farm School.

The major issue regarding future sewage capacity is that while the Valley Forge Sewage Treatment Plant could be expanded and the Township receive its 9.5 mgd, the sewage could not be transported to the plant based upon the existing flow capacity of the Wilson Road Pump Station in adjacent Tredyffrin Township. The Township current average daily flow capacity of the Wilson Road Pump Station is 2.3 mgd. Until the Wilson Road Pump Station is upgraded to accommodate a potential sewage plant expansion, the Township's policy to serve the Study Areas indicated in this Plan. If, and when, capacity becomes available, the small private plants that currently exist in East Whiteland will be connected to the Township's system.

I. INTRODUCTION

A. Purpose of the Official Plan

This Official Plan for sewerage systems in East Whiteland Township represents a comprehensive study of existing sewerage services and expected wastewater disposal needs. The requirement for such a study is set forth in Section 5 of the Pennsylvania Sewage Facilities Act, P.L. 1535, No. 537, as amended. (Refer to Appendix A) Regarding Official Plans, it is stated that: "Each municipality shall submit to the Department an officially adopted plan for sewage services for areas within its jurisdiction...". The need for an Official Plan is aptly expressed in the provisions for the "Administration of Sewage Facilities Program" contained in Chapter 71 of the Pennsylvania Code, Title 25. (Refer to Appendix B) In subsection 71.3, Purposes, it is stated that: "Official plans shall of necessity clearly demonstrate the municipality's approach to alleviate existing mass sewage problems, shall identify the present sewerage services now available and shall further indicate what will be done to provide the services needed in the future to cope with new development." Further, the Plan has a major aim of integrating new sewage facilities into the community in ways that will not disrupt or debase other important facilities and amenities such as recreational or important natural areas. This includes preventing the interbasin transfer of water when the watershed of origin can be clearly determined.

B. Sewage Construction to Date in the Township

Construction of the East Whiteland Municipal Authority system was begun in 1975. The initial sewer system consisted of a 27 inch trunk line along Matthews Road and a collection system serving the Down East, General Warren Village, Chester Valley Knoll as well as a portion of the Whiteland Farms sections of the Township. The initial system also provided service for the commercial developments along Route 30 as far as the One Park Place apartments west of Malin Road. These lines served predominately the eastern portion of the Township between the Amtrak railroad line and Route 202. Included was the previously installed, capped system along Oak Hill Circle south of the Amtrak line.

The initial system also included the construction of the Mill Lane Pump Station which replaced a private treatment system at the same location. The private treatment system had served the central portion of the Township north of Route 202 in the vicinity of Lee Boulevard and Sidley Road and a part of the Great Valley Corporate Center West development. The Mill Lane Pump Station enabled the elimination of an obsolete treatment plant and the connection of a previously installed, capped system along Knollbrook Circle and Mill Creek Lane.

Once the initial system became operational in 1977, development of the Great Valley Corporate Center East initiated the extension of sewers to serve the eastern portion of the Township north of Route 202. Sewer extension to this portion of the Township allowed connection to the remainder of the Great Valley Corporate Center West shortly thereafter.

Construction of the Bryn Erin development in the late 1970's predicated the extension of sanitary sewers along Route 401 west of Mill Lane and Route 202.

The Meadowview Pump Station on Swedesford Road was constructed in the early 1980's and allowed the connection of the remainder of the capped sewer system in the Whiteland Farms section of the Township as well as a remaining portion of the One Park Place apartment complex.

Development of the Pickford Road subdivision in 1984 and the Oak Hill Subdivision in 1986 brought sewer service to the remaining portion of the Sidley Road/Mill Lane area and to the western Lapp Road area. The previously installed capped sewers in Forge Drive and Dale Lane were connected to the system in 1987.

In 1988, construction of the Route 30 sewer extension was begun. The initial portion included sanitary collection lines along each side of Route 30 from the previous terminus at One Park Place Drive west to Church Road. In 1989, the remaining portion of Route 30 from Church Road to Route 202 was constructed. During this period, the extension of the Oak Hill Circle line was constructed to serve the Amy Lane Development in the south-central portion of the Township.

C. Content of the Official Plan Report

The content of this Official Plan Report provides a description of the following: the institutional framework for the planning of sewage disposal systems; a profile of the Township's physical and demographic conditions and existing and proposed land development; the characteristics of existing sewerage services and conditions; the proposed sewerage services and conditions which relate to all of the above; and an evaluation of the Official Plan's proposals. These components are explained in accordance with the requirements of the Sewage Facilities Act and Subsection 71.14, Contents of Plans, of the provisions for "Administration of Sewage Facilities Program," both of which are contained in Appendix A.

II. BACKGROUND

A. Official Act 537 Plan Context

1. Requirements of the Pennsylvania Sewage Facilities Act

Act 537 sets forth certain plan requirements and planning directives to guide in the preparation of Official Plans. (The complete text of the Act, in particular 25 PA Code, Chapter 71, is contained in Appendix A.) According to Section 5.(d)(1) of the Act, "Every official plan shall: delineate areas in which community sewage systems are now in existence, areas experiencing problems with sewage disposal including a description of said problems, areas where community sewerage systems are planned to be available within a 10 year period, areas where community sewerage systems are not planned to be available within a 10 year period, and all subdivisions existing or approved."

The Act also requires that Official Plans: "provide for the orderly extension of interceptor sewers (1); provide for adequate sewage treatment facilities (2); consider all aspects of planning, zoning, population estimates, engineering and economics (3); consider any existing State plan affecting water and other natural resources (4); establish procedures for delineating and acquiring rights-of-way or easements for community sewage systems (5); set forth a time schedule of methods for financing the construction and operation of the planned community sewage systems (6); be reviewed by appropriate official planning agencies (7); and, designate municipal responsibility for implementation of the plan (8)."

These requirements are not entirely applicable to East Whiteland Township. The following numbers (1) thru (8) correspond to the preceding paragraph:

(1) Eight inch mains throughout the sewered areas feed into the 27 inch interceptor along Matthews Road and then to Tredyffrin Township for conveyance.

(2) The East Whiteland Municipal Authority operates a collection system only. Treatment is provided by the Valley Forge Sewer Authority (VFSA).

(3) Please refer to the text for pertinent information.

(4) The 1983 State Water Plan mandates that Schuylkill River water be retained within the Schuylkill basin.

(5) Developers are to provide, and have provided, rights-of-way or easements in coordination with the Municipal Authority.

(6) Private financing is provided as development occurs. For areas already developed, the Municipal Authority floats bonds that are paid off with annual Township revenues.

(7) Agencies such as the PA Department of Environmental Resources, Chester County Planning Commission, the Chester County Health Department and the East Whiteland Municipal Authority review official plans.

(8) The East Whiteland Township Board of Supervisors is responsible for implementation of the Official Plan.

2. Past Official Plans

a. Master Sewer Plan for Chester County, Pennsylvania

A county-wide Act 537 Official Plan was prepared in 1970 by the Chester County Planning Commission, with the assistance of Roy F. Weston, Inc., Environmental Scientists and Engineers. It was adopted by the Township Board of Supervisors through a resolution. A copy of the Officially Adopted Act 537, Sewer Plan (Map) is Figure 1. It recommends that:

1. Between 1968 and 1978 -

All of the Township is to be served by public sewer except the:

a) Northeast corner of the Township (east of Morehall Road and north of what is now the Great Valley Corporate Center);

b) Southeast corner of the Township (between the Chester Valley Rail Line and U.S. Route 30); and

c) Northwest corner of the Township (north of the Chester Valley Rail Line and west of Philadelphia Memorial Park).

2. Between 1978 and 1988, service would be extended to the -

a) Northeast corner of the Township (east of Morehall Road and north of what is now the Great Valley Corporate Center); and

b) Southeast corner of the Township (between the Chester Valley Rail Line and U.S. Route 30).

3. After 1988 -

No further provision of public sewer service was anticipated.

EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

BRANDYWINE BASIN

SCHUYLKILL BASIN

RIDLEY BASIN

CHARLESTOWN TWP

EAST GOSHEN TOWNSHIP

WILLISTOWN TOWNSHIP

MALVERN

EAST WHITELAND TWP
THORNBURY TWP

FIGURE 1

COUNTY WIDE ACT 537 PLAN

ADOPTED IN 1970

RECOMMENDED SERVICE AREAS

- — 1968 TO 1978
- — 1978 TO 1988
- — NOT WITHIN SERVICE AREA

DRAINAGE AREA BOUNDARY

SOURCE:

MASTER SEWER PLAN
REVISED ADDITION 1970
FOR CHESTER COUNTY, PA

BASE MAP PREPARED BY KOHLI & ASSOCIATES, INC., 1981

The first phase of sewered area expansion, 1968 to 1978, was directed primarily toward those areas which in 1968 experienced sewage disposal problems. The second phase of expansion, 1978 to 1988, was defined for areas where additional growth was expected. The County-wide Plan has continued to remain in effect pending preparation of the East Whiteland Township 537 Plan.

b. Official Plan Activity by East Whiteland Township

The Township reviews every development proposal for consistency with the East Whiteland Comprehensive Plan and the Official Act 537 Plan. Significant development has occurred since 1970 and the Official Plan is not revised for each project. Rather, the Municipal Authority updates its service area maps and notes the correlation between the particular development and the Official Act 537 Plan.

3. The Institutional Context of the Valley Forge Sewer Authority

The Valley Forge Sewer Authority (VFSA) was organized on February 6, 1969 and operates under the provisions of the Municipal Authorities Act of 1945, P.L. 382, as amended. In November of 1970, Charlestown, East Pikeland and Schuylkill, through the VFSA, entered into the Valley Forge Sewage Treatment Plan Agreement along with the Townships of East Whiteland, Tredyffrin, Willistown and Easttown and the Borough of Malvern through their respective municipal authorities. Under this agreement, the VFSA was given an allocation of 26.5 percent of the initial design capacity of the Valley Forge Wastewater Treatment Facility (2.0 MGD of 7.53 MGD). East Whiteland's initial share of the VFSA allocation was utilized when properties in the Initial Service Area were connected to the wastewater treatment system. The VFSA, who assumed responsibility for the construction, ownership, operation and financing of the treatment facility, established and collects fees for its administration, operation and maintenance. East Whiteland Township had an approximate 1.7 million gallon per day capacity assigned for use within the Design Service Area. The average daily flow used by East Whiteland in 1990 is 1.052 million gallons per day, representing approximately 62 percent of the total Township allocations. Within the framework of the VFSA, East Whiteland will continue to obtain and expand upon its municipal sewage treatment.

B. Profile of East Whiteland Township

1. General Setting

East Whiteland Township, located in Eastern Chester County, comprises approximately 6,930 acres or 10.8 square miles. East Whiteland is flanked by Tredyffrin Township to the east and West Whiteland Township to the west, within the Great Valley. Please refer to Figure 2, Regional Location.

Access

East Whiteland has many regional and interstate highway corridors located within or immediately adjacent to its boundaries. Few municipalities in Chester County are served directly by as many interstate and regional arteries. As can be seen in Figure 2, U.S. Routes 202 and 30 run east/west through the Township. Pennsylvania Routes 29, 352, and 401 provide north/south access through the Township. The Pennsylvania Turnpike (I-76) is situated just north of the Township, with two interchanges within 10 miles east or west. Although these roadways have provided easy access for commuters from East Whiteland to outlying population areas, the same highway network has brought outlying commuters into the employment centers of the Township, resulting in a change in travel patterns. East Whiteland has evolved, in recent years, into a major employment center and thus an importer of labor rather than an exporter of labor, a situation that is experienced by the majority of Chester County municipalities.

East Whiteland also has two freight lines (the Conrail Trenton cut-off and Chester Valley Line) and a high speedline (AMTRAK) traveling east/west through the Township. There are no train stations situated within the Township, but there are stations within minutes of East Whiteland located in Exton, Malvern, and Paoli which service commuters.

Employment

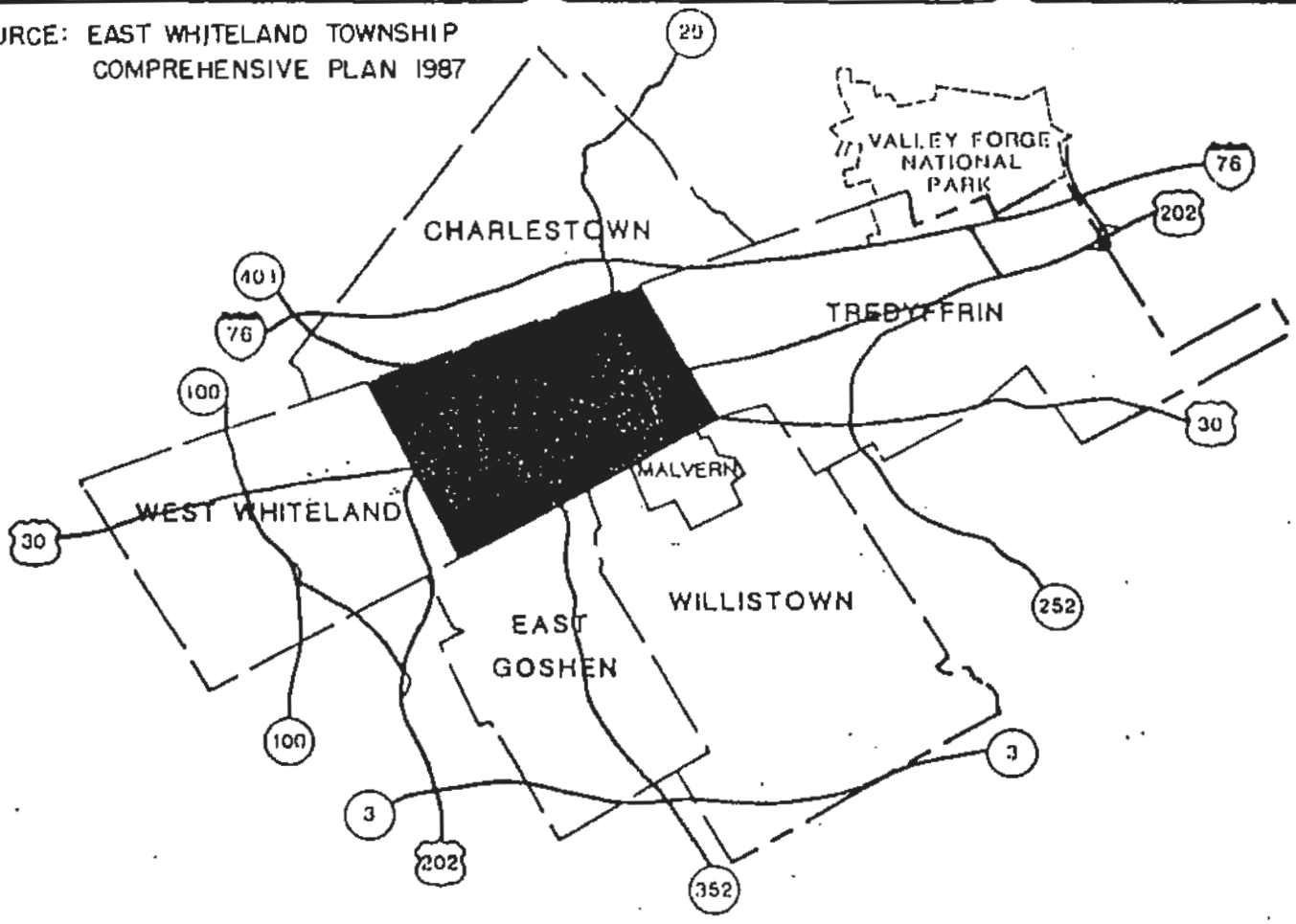
Since 1980, East Whiteland Township has become a prime location for many advanced technology and service-oriented companies in the Philadelphia Metropolitan Area. Many regional and national headquarters for major companies in these industries have located here. The hub of this industrial development is the Great Valley Corporate Center. This has resulted in East Whiteland evolving into the major industrial/office center in the County, if not the region. There were approximately 300 businesses in East Whiteland Township as of 1990.

FIGURE 2
REGIONAL LOCATION

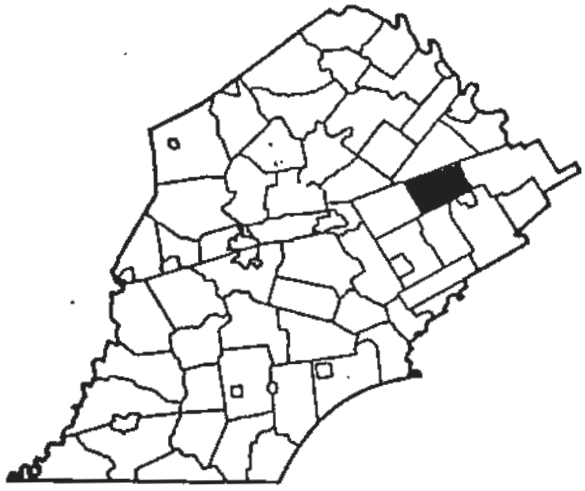
EAST WHITELAND TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA

NORTH

SOURCE: EAST WHITELAND TOWNSHIP COMPREHENSIVE PLAN 1987



EAST WHITELAND IN CHESTER COUNTY



EAST WHITELAND IN SOUTHEASTERN PENNSYLVANIA

In 1986, 13,247 persons were employed in East Whiteland. Predominant industries included: business services (2,648);insurance (2,000); chemicals (1,630); primary metals (1,405);and miscellaneous services (1,005). The top five employers in 1986 were: National Liberty Corp.; Shared Medical Systems; Wyeth Laboratories; Systems and Computer Technology Corp.; and National Rolling Mills.

The industrial and retail sections dominate the economy of East Whiteland. These sections are expected to continue to do so. Significant increases have been experienced, however, in administrative, managerial, sales and service occupations. These increases reflect the nationwide transition towards a service economy.

The Route 30 corridor which runs through the southern portion of the Township has supplanted any town center and provides the retail and service spine for East Whiteland.

Geology and Drainage

Most of East Whiteland, that area belonging to the Chester Valley, is underlain by limestone. The Chester Valley was formed not by a major stream, but a sequence of limestones and dolomites down-dropped by a combination of folding and faulting to form a relatively narrow band of sediments lying between the igneous and metamorphic rocks on either side. Subsequent physical and chemical weathering has further reduced the general level to below that of the quartzites of the North Valley Hills and the Wissahickon albite-chlorite schist of the South Valley Hills. The Valley is therefore defined by the limestone area.

The most distinctive characteristic of these limestones is that the chemical interaction of air and water tends to form a weak carbonic acid solution which, with humic acid from vegetation decay, slowly dissolves the limestones and forms underground solution channels which frequently extend long distances. These present the danger of sink holes and foundation collapse as well as the hazard of groundwater pollution. However, they also contribute to the generally deep and well-drained characteristics and fertility of the overlying soils. Groundwater yields of the limestones and dolomite underlying East Whiteland tend to be highly variable. When a large solution channel is tapped, very large water supplies may result. Otherwise yields are small. Water quality is generally good, although the risk for contamination is great.

The southern portion of the Township is underlain by Wissahickon albite chlorite schist. The deep weathering of these rocks tends to improve the percolation characteristics of the soil but frequently presents foundation problems. Foundation conditions for heavy buildings should be carefully checked in these areas. However, because of the greater weathering, schists yield more groundwater, the amounts ranging between 10 and 30 gallons per minute to a

maximum of 70 to 100 gallons per minute. Groundwater from schists tends to be of a high quality of purity and softness.

The extreme northern portion of East Whiteland is underlain by the Chickies group of quartzite. Quartzite is a strongly metamorphosed sandstone that occurs as a hard, smooth rock. Its hardness resists erosion and weathers slowly. As a result it often forms high sharp ridges such as the North Valley Hills. Like other hard rocks, water yields are low, ranging between 5 and 15 gallons per minute.

Drainage basins are illustrated in Figure 1. Most of East Whiteland Township (6,590 acres or 86%), falls within the Valley Creek subbasin, and thus drained eventually by the Schuylkill River. A small area (540 acres or 7%) of the south-central and southwest portion of the Township is drained by the headwaters of Ridley Creek. The extreme western portion of the Township (550 acres or 7%) is drained by Valley Creek which flows into the East Branch of the Brandywine Creek.

Topography, Geology and Land Use

The general pattern of land uses in East Whiteland is traceable, in part, to the existing topography and geology of the Township. The existence of the Great Valley, the wooded slopes of the North and South Valley Hills, and the plateau area in the southern portion of the Township have shaped settlement patterns and planning policies for development related to topographic and geologic features.

The present arrangement of land uses within and adjacent to the Township continues to reflect the natural conditions and the established planning policies. Slopes are one example of natural conditions affecting development and planning policies. Please refer to Figure 3, Slopes.

Land uses that seek the advantages of accessibility or the relative ease of development according to soils type or slopes are most evident throughout the Great Valley. Commercial and industrial uses along the Routes 29, 30 and 202 corridors, and office and industrial buildings with substantial ground coverage dominate in the valley. A potential disadvantage in this area is the carbonate limestone formation which underlies most of it. As described above, this geological formation is prone to sink holes and groundwater pollution, and therefore could pose problems for extensive on-site sewage disposal, heavy construction, or the expansion of impervious surfaces. Thus far the uses in this area have generally succeeded in avoiding such consequences.

SOURCE
EAST WHITELAND COMPREHENSIVE PLAN 1987
AND U.S.G.S. QUADRANGLE, MALVERN

BASE MAP PREPARED BY KOHLI & ASSOCIATES, INC. 1991

FIGURE 3

EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

As accessibility has keyed the growth of industrial, office and commercial activity to the Routes 29, 30 and 202 corridors, concentrated development within the Great Valley is expected to continue once improvements to Route 29 and the proposed Exton By-Pass are constructed. These improvements will transform the circulation and access conditions of East Whiteland into a greater locational advantage.

Residential uses in East Whiteland are concentrated in the central to southern portions of the Township. Most of this development has been single-family dwellings, although multi-family dwellings have increased in recent years. Table 1 indicates the acres in each land use within the Township. Please refer to Figure 4, Existing Land Use, for a graphic depiction of land use patterns in the Township.

Existing Township parks embrace the stream corridor. As such, stream corridors represent a major amenity to the community which merit special protection.

Adjacent Municipalities

The six municipalities which surround East Whiteland include the Townships of Charlestown, Tredyffrin, Willistown, East Goshen, West Whiteland and the Borough of Malvern. The six municipalities are characterized by a diversity of land uses and intensity of development. Figure 2 displays the relationship between East Whiteland and the surrounding municipalities. An overview of each municipality in terms of land use adjacency and planning efforts follows.

East Whiteland does not have many serious land use conflicts at its respective boundaries with adjoining municipalities. In most instances, the use in both municipalities is single-family residential development at compatible densities. The industrial development along the Charlestown boundary abuts existing and zoned industrial uses. Although the Warner Quarry extends into Tredyffrin, the low density residential areas in Tredyffrin which abut the property are impacted by it. The balance of the Tredyffrin boundary consists of compatible industrial uses and zones. The boundaries with East Goshen and Willistown are well matched with existing and zoned uses.

Development along a portion of the Malvern Borough boundary is potentially a conflict due to the developing industrial park in the Borough. However, existing woodlands serve as an adequate buffer. The border with West Whiteland is consistent, as residential and agricultural uses abut. Both Townships have industrial uses that abut areas of lesser density, and tract sizes and buffers have reduced most points of conflict. The most significant area of potential change

Table 1
LAND USE DISTRIBUTION, EAST WHITELAND TOWNSHIP, 1987

Land Use	Area	Percent
Residential	1680 Ac.	21.9
Single Family	1590 Ac.	20.7
Multi-Family	21 Ac.	0.3
Mobile Home Park	69 Ac.	0.9
Commercial	262 Ac.	3.4
Retail/Service	242 Ac.	3.1
Office/Professional	20 Ac.	0.3
Industrial	1287 Ac.	16.7
Limited/Warehouse	238 Ac.	3.1
General/Quarry	722 Ac.	9.4
Corporate	327 Ac.	4.3
Institutional	255 Ac.	3.3
Recreation	371 Ac.	4.8
Utilities/Transportation	750 Ac.	9.8
Agriculture	494 Ac.	6.4
Woodland	1229 Ac.	16.0
Vacant	1352 Ac.	17.6
TOTAL	7680 Ac.	100.0

Sources: Adapted from the East Whiteland Township Comprehensive Plan of 1987.

Land development since 1987 is depicted on Table 3 and Figure 7.

EAST WHITELAND TOWNSHIP

CHESTER COUNTY, PENNSYLVANIA

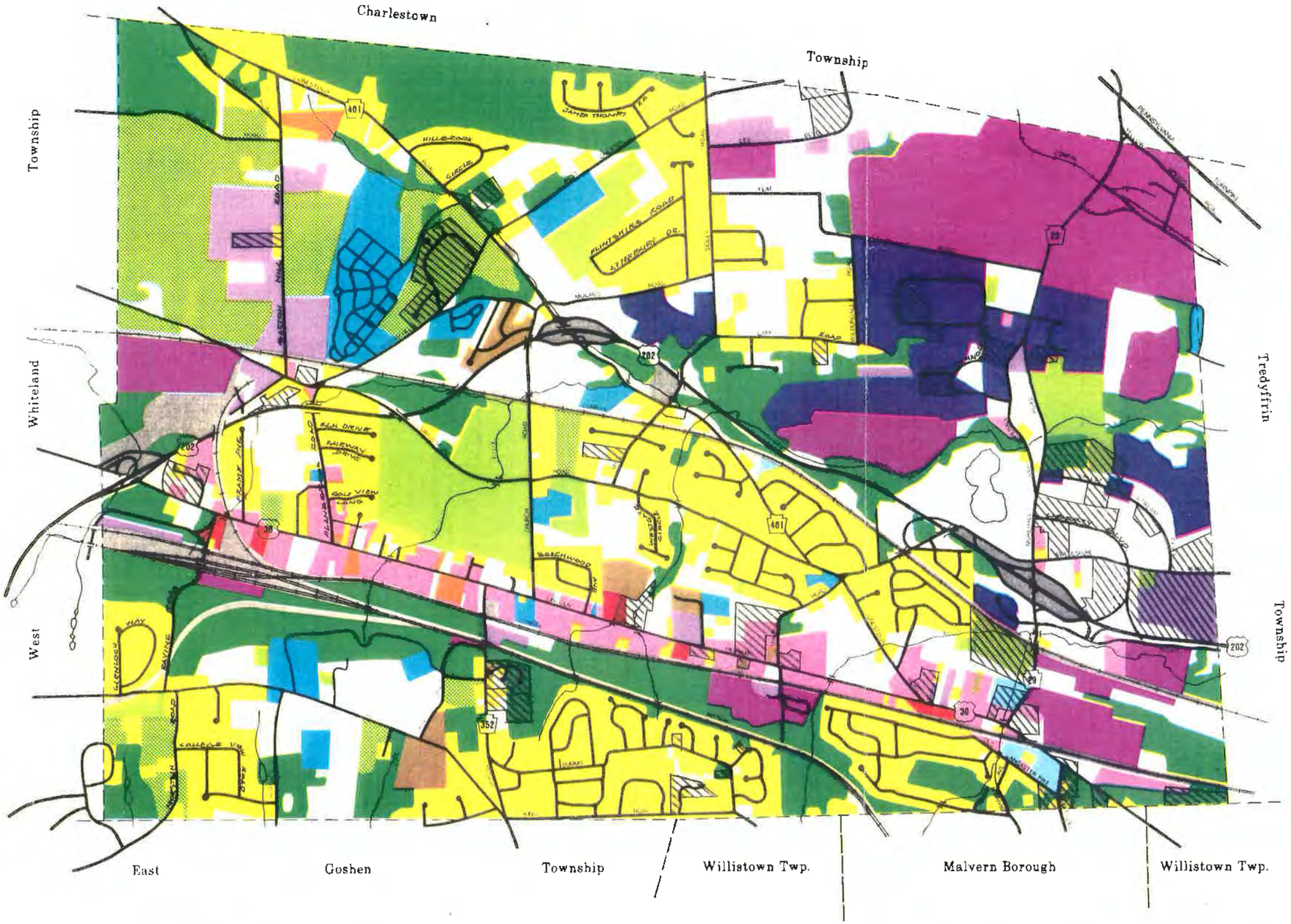
0 2000 4000

Scale (in feet)

N

FIGURE 4

EXISTING LAND USE



RESIDENTIAL

- SINGLE FAMILY
- MOBILE HOME PARK
- MULTI FAMILY

COMMERCIAL

- RETAIL/SERVICE
- OFFICE/PROFESSIONAL

INDUSTRIAL

- LIMITED/WAREHOUSE
- GENERAL/QUARRY
- CORPORATE

OTHER LAND USES

- INSTITUTIONAL
- RECREATION
- UTILITIES/TRANSPORTATION
- AGRICULTURE
- WOODLAND
- VACANT
- SUBDIVISION / LAND DEVELOPMENT ACTIVITY APPROVED SINCE 1987

SOURCE:
EAST WHITELAND COMPREHENSIVE PLAN 1987
UPDATED BY KOHLI & ASSOCIATES, 1991

along the East/West Whiteland border relates to the Church Farm School tract. Although currently in agricultural use, the proposed zoning change for a new community development known as "Churchill" was denied and a "by right" multi-family development, known as Valley Crossing has been granted preliminary approval.

Charlestown Township forms the entire northern boundary with East Whiteland. Charlestown is the most rural municipality adjoining East Whiteland with most of its land in low density residential and agricultural uses. The settlement patterns of the Township have been primarily influenced by the prevalence of environmental constraints and the lack of infrastructure, major roads and public facilities. The portion of the Township that borders East Whiteland has been planned for industrial uses adjacent to Phoenixville Pike and the Pennsylvania Turnpike, commercial uses in Devault, and residential uses of low to medium density.

Tredyffrin Township forms the entire eastern border of East Whiteland. Tredyffrin is the most populous municipality in Chester County and contains the same diversity of land uses found in East Whiteland. Tredyffrin experienced much of its development in the 1950's and 60's as suburbanization extended westward from Philadelphia. Development has accelerated due to available public sewer and water capacity as well as excellent highway access. Many key regional highways such as U.S. Routes 202, 30 and the Pennsylvania Turnpike traverse Tredyffrin. Tredyffrin is not entirely developed as implied, in fact much of the northern and western portions of the Township are low density residential development scattered amidst open, undeveloped lands. The portion of Tredyffrin that borders East Whiteland has been planned for low to medium density residential use. Stream valley preservation is planned along the Valley and Little Valley Creeks in the southern part of this border.

Willistown Township is one of the three municipalities that form the southern border of East Whiteland. The Township borders East Whiteland on either side of Malvern and each area has a different character. The eastern area contains the Paoli Memorial Hospital and office and industrial development, while the western area contains single-family development. Willistown Township can be divided into two distinct areas, the areas north and south of Paoli Pike. The northern area is comprised of medium density residential, commercial, institutional, and industrial uses. The southern area is comprised of low density residential and agricultural uses, and open undeveloped land.

Much of the land in the southern area of Willistown is under protective easement. The portion of Willistown that borders East Whiteland has been planned for low-to-medium density residential along the western portion of the border and medium to high density residential and industrial use along the eastern portion of the border.

Malvern Borough is situated along the southern border of East Whiteland and is surrounded by Willistown. Malvern is the most dense municipality of the seven

and is characterized by medium to high density residential, commercial, and industrial uses. King Street, which traverses the southern portion of East Whiteland, is the most important road in Malvern along which most of the commercial and service uses are located. The portion of Malvern that borders East Whiteland has been planned for medium density residential (4 DU/acre) and industrial use.

East Goshen Township forms over half of the southern border of East Whiteland. East Goshen is one of the most rapidly developing municipalities in the County. The Township increased 95% in population and 156% in dwelling units between 1970 and 1980. The Township is characterized by low to medium density residential development with areas of commercial, industrial and high density residential along Paoli Pike and PA Routes 3 and 352. The portion of East Goshen that borders East Whiteland has been planned for low density residential and conservation.

West Whiteland Township forms the entire western boundary of East Whiteland. West Whiteland has developed very similarly to East Whiteland in that the most intensive uses are within the Chester Valley. U.S. Route 30 is common to both East and West Whiteland. The Township also contains PA Route 100, the most important north-south route in the County. The Exton By-Pass is to be constructed within West Whiteland, connecting the Downingtown By-Pass to U.S. Route 202. West Whiteland has a diversity of land uses similar to East Whiteland and contains the largest concentrations of retail uses in Chester County. The portion of West Whiteland that borders East Whiteland has been planned by West Whiteland for low density residential and industrial/office uses adjacent to the U.S. Routes 202 and 30 interchange. However, there are proposals before both Townships for higher intensity uses, via the Churchill project.

2. Population

The total population in East Whiteland in 1980 was 8,468 according to the U.S. Bureau of the Census (refer to Appendix E). The population projections for the Township have been varied. For 1985, a range in total population of 8,750 to 8,970 was reported in the 1987 East Whiteland Township Comprehensive Plan. A range in the total population for 1990 from 9,466 to 11,088 was reported in the same Comprehensive Plan.

However, based on the U.S. Bureau of the Census, the 1990 population of the Township was 8,398. The County has projected a year 2000 population to be 9,780 (see Appendix E). In the COWAMP 208 Study, the Delaware Valley Regional Planning Commission reported a year 2000 projection of 9,300. The population for the 1990-2000 period, therefore, can be assumed to range from approximately 9,000 to 10,000.

3. Planning and Zoning Overview

a. The Comprehensive Plan

In January, 1987, the East Whiteland Township Board of Supervisors adopted the Comprehensive Plan. The Plan represents a high level of environmental analysis. It is also responsive to the development pressures which have been and will continue to be exerted on the Township and the infrastructure available to support development. The land use recommendations made in the Plan are shown in Figure 5. These various recommendations complement one another and were pertinent to a target year of 2000. In early 1987, the work program began to amend the Zoning Ordinance and implement the Comprehensive Plan.

b. The Zoning Ordinance

A brief summary of the East Whiteland Zoning Ordinance is provided in this section, along with a tabulation of the areas which remain to be developed. These undeveloped areas affect the type and amount of future sewage requirements.

The East Whiteland Township Zoning Ordinance and Map were adopted in 1975. The Ordinance and Map have subsequently been amended through 1988. Please refer to Figure 6, the Zoning Map. In 1987, a work program began to amend the Zoning Ordinance, which is still underway.

The Zoning Ordinance established 16 zoning districts including a Flood Hazard District. Included are four residential districts, four commercial districts, three professional office districts and four industrial districts.

The four residential districts comprise approximately 3,784 acres or 55% of East Whiteland.

- R-1 requires a minimum 44,000 square foot (or 1.01 acre) lot area. Uses allowed include single-family detached dwellings, agriculture, government, educational and religious activities. This zone includes about 2,253 acres and is found in the northwest, central and southwest areas of the Township.

EAST WHITELAND TOWNSHIP

CHESTER COUNTY, PENNSYLVANIA

0 2000 4000

Scale (in feet)

N

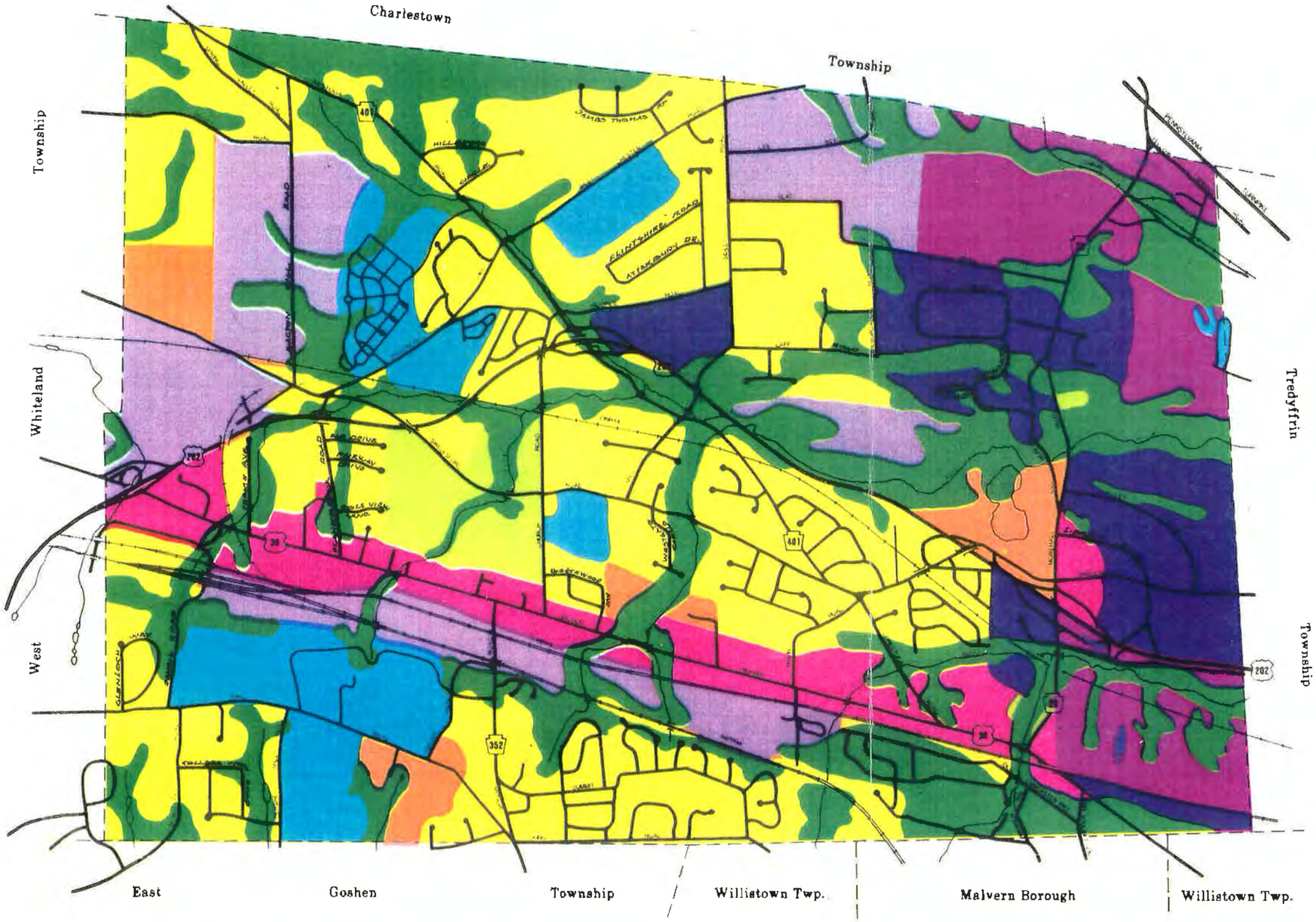


FIGURE 5

FUTURE LAND USE

- SUBURBAN RESIDENTIAL
- URBAN RESIDENTIAL
- COMMERCIAL
- LIMITED INDUSTRIAL
- GENERAL INDUSTRIAL
- CORPORATE
- INSTITUTIONAL
- RECREATION
- ENVIRONMENTAL CONSTRAINTS

Sources: East Whiteland Township and CCPC, 1986.

Base Map Prepared by the Chester County Planning Commission, 1986

UPDATED BY KOHLI & ASSOCIATES, INC. 1991

EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

LEGEND

- R-1 RESIDENTIAL
- R-2 RESIDENTIAL
- R-3 RESIDENTIAL
- R-4 RESIDENTIAL
- PO-1 PROFESSIONAL & OFFICE
- PO-2 PROFESSIONAL & OFFICE
- PO-3 PROFESSIONAL & OFFICE
- C-1 COMMERCIAL
- C-2 COMMERCIAL
- C-3 COMMERCIAL
- C-4 COMMERCIAL
- LI LIMITED INDUSTRIAL
- GI GENERAL INDUSTRIAL
- RIC RESTRICTED INDUSTRIAL COMMERCIAL
- GI-M GENERAL INDUSTRIAL DISTRICT-MINING

FIGURE 6

ZONING MAP

SOURCE: EAST WHITELAND TOWNSHIP ZONING MAP
ADOPTED SEPTEMBER 2, 1975
LAST REVISED JUNE 8, 1992

BASE MAP PREPARED BY KOHLI & ASSOCIATES, INC., 1991

- The R-2 zone requires a minimum lot area of 22,000 square feet, or 0.51 acres. Permitted uses are similar to those of the R-1 zone. The R-2 zone is found in the western and south-central areas of East Whiteland. About 1,013 acres are zoned R-2.

- For R-3, the minimum lot size is 18,000 square feet, or 0.41 acres. Uses are again similar to R-1. Approximately 194 acres are zoned R-3 and are located in the southeast corner of the Township.

- R-4 is a higher density residential zone and allows various unit types ranging from mobilehomes and multi-family dwellings to single-family detached dwellings. A variety of minimum lot areas or densities are allowed, depending on the dwelling unit type. 324 acres are zoned R-4 and large areas can be found along the western, southern and eastern boundaries of the Township, plus a small area in the central portion of the Township north of U.S. Route 30.

Four commercial districts are delineated in the Zoning Ordinance. These districts total 572 acres, or 8.2% of the Township's land area.

- C-1 is a retail shopping district allowing shops, banks, restaurants and offices. A minimum 20,000 square foot lot area is required, with building coverage limited to 40%. Almost 143 acres are zoned C-1, most of which is already developed. C-1 is found north and south of Route 30.

- C-2 is a more general commercial district that, in addition to C-1 uses, can permit service and hotel/motel uses. C-2 requires a minimum one acre lot, and limits building coverage to 40%. Approximately 147 acres are zoned C-2 and are found primarily along Route 30.

- C-3 is also a general commercial district that allows C-2 uses, as well as automotive sales and repair and lumber activities. Only one area, of less than 80 acres, is zoned C-3. This is along the western part of Route 30.

- The last commercial district is C-4. All C-1 and C-2 uses are allowed, as well as distribution, assembly and office uses. The minimum lot area requirement is 12,000 square feet, and maximum building coverage is 40%. C-4 is found in a long strip of over 200 acres, south of and parallel to Route 30.

The Zoning Ordinance designates three "Professional Office Districts." These districts constitute 4.4% of the Township's land area, or 306 acres.

- PO-1 allows residential, agricultural and office uses. Educational and medical activities are also allowed. PO-1 requires a minimum 22 acre lot and caps building coverage at 15%. Approximately 210 acres are zoned PO-1 and are found at the intersection of Routes 202 and 401 and on the Township's eastern edge.

- PO-2 allows all PO-1 uses except residential. The minimum lot area is five acres. Building coverage cannot exceed 15%. About 75 acres are designated PO-2. These areas are found north and south of the Route 30 intersection with Route 29.

- The third professional office district is PO-3. All PO-2 uses are allowed, plus R-4 uses. The minimum lot area is three acres and building coverage cannot exceed 25%. Only one parcel of 21 acres is designated PO-3. This is south of Route 30, on the eastern end of the Township.

Four industrial districts are designated in the Ordinance, which account for almost 33% of the Township's land area, or 2,269 acres.

- LI is a limited industrial district. Permitted uses include agriculture, laboratories, transportation, warehousing, light manufacturing and offices. The minimum lot size is one acre. The maximum building coverage ranges from 20% for lots under three acres to 40% for lots over 10 acres. LI comprises over 1,000 acres and is found in several large areas, including those south of Route 30 and in the north-central and east-central part of the Township. A small area in the southeast is zoned LI.

- GI is a general industrial district. All LI uses are allowed, as well as manufacturing and construction equipment services. The minimum lot area is five acres. Building coverage is limited to 20 to 40%, depending on lot size. 587 acres are zoned GI and are found in two areas: the Great Valley Corporate Center and south of Route 202 on the Township's eastern boundary.

- GIM is the general industrial-mining district. All GI uses are allowed, plus surface mining. One large area in the northeast corner of the Township is zoned GIM, comprising 483 acres. The lot area minimums are the same as for GI except that surface mining requires at least 50 acres.

- The fourth industrial zone is RIC, or Restricted Industrial Commercial. Permitted uses include offices, parks, laboratories, municipal services and light manufacturing. The minimum lot size is five acres. The maximum building coverage ranges from 20% (up to a two acre lot) to 40% (lots over 10 acres). 157 acres are zoned RIC, in the eastern part of the Township along Liberty Boulevard and Matthews Road.

Sewage disposal requirements for all zoning districts are found in Section 1823 of the Zoning Ordinance. Uses are to be served "either by a municipal or privately owned sewage treatment plant or by an on-lot septic system" provided that the safety and effectiveness of the on-lot systems are approved by the appropriate public health officer.

Table 2 divides the Township land area into zoning districts. The Flood Hazard District is essentially an overlay area and not included for analytical purposes. The size of each zone is calculated by acreage and as a percentage of total Township land area. Acres served by public or private sewerage systems are listed, as are the amount of acres undeveloped. Finally, the number of residences that could be built on undeveloped land, or the square footage of potential commercial, office and/or industrial land uses are tabulated.

The table inventories two types of undeveloped land. The first type includes vacant parcels as classified by the Vacant Parcel Analysis conducted in 1986 by the Eastern Chester County Regional Planning Commission, the 1987 Township Comprehensive Plan, and field survey. The second type includes parcels currently developed but which are large enough to be subdivided and further developed. This type is primarily residential.

In summary, the Township could theoretically expect up to 3,600 new residences, over 776,000 square feet of commercial uses, 1,393,000 square feet of professional and office use, and over seven million square feet of industrial-type activities on undeveloped land.

It is important to note that the figures reported here do not reflect a detailed analysis of each tract of land in the Township. These calculations are generalized estimates and for planning purposes only. No site constraints, transportation, or other requirements were factored in. Parcels zoned non-residential were considered developed, if presently built upon. Vacant, non-residential parcels were assumed to be developed at their maximum, so these estimates are high.

Table 2

LAND AVAILABLE FOR FUTURE DEVELOPMENT IN EAST WHITELAND, BY ZONING DISTRICT

Zoning District	Potential New Acres In District	Percent of Township	Acres Sewered	Acres Undeveloped	Percent of Township	Dwelling Units/ Square Footage
R-1	2,702.8	35.2	872.5	740.6	9.6	732
R-2	1,094.6	14.3	372.0	238.4	3.1	468
R-3	196.0	2.5	165.0	11.4	0.2	26
R-4	356.4	4.6	28.6	244.3	3.2	2,405
SUBTOTAL	4,349.8	56.6	1,438.1	1,234.7	16.1	3,631
C-1	180.7	2.4	180.7	25.3	0.3	441,827
C-2	92.6	1.2	83.0	13.7	0.2	238,709
C-3	81.2	1.0	61.0	3.5	0.05	52,272
C-4	163.3	2.1	163.3	2.5	0.05	43,560
SUBTOTAL	517.8	6.7	488.0	45.0	0.6	776,368
PO-1	257.9	3.4	257.9	69.7	0.9	910,186
PO-2	84.6	1.1	84.6	36.9	0.5	482,209
PO-3	23.2	0.3	23.2	0.0	0.0	0
SUBTOTAL	365.7	4.8	365.7	106.6	1.4	1,393,395
LI	1,152.0	15.0	555.0	194.2	2.5	6,244,327
GI	578.4	7.5	320.0	49.6	0.6	773,625
GIM	544.8	7.1	0.0	0.0	0.0	0
RIC	171.5	2.3	171.5	0.0	0.0	0
SUBTOTAL	2,446.7	31.9	1,046.5	243.8	3.1	7,017,952
TOTAL	7,680.0	100.0	3,338.3	1,630.1	21.2	N/A

Sources:

1. East Whiteland Township Comprehensive Plan, 1987.
2. Chester County Assessment Office, data available thru December, 1990.
3. Kohli and Associates, Inc., Sewer Service Analysis, 1991.

Almost 75% of the land area in East Whiteland is already developed. This leaves approximately 1,630 acres either vacant or capable of being subdivided and developed. Developable sites are scattered throughout the Township. Over three-quarters of this acreage is zoned residential. About 244 acres are industrially-zoned, 107 acres are zoned professional-office, and the remaining 45 acres are zoned commercial.

Most of the developable land is zoned residential and the majority of that, or 741 acres, is zoned R-1. This acreage could support 732 dwellings. Parcels are located throughout the central, northwest and southwest areas of East Whiteland. R-2 zoned land that could be developed or subdivided totals 238 acres. This acreage could support 468 dwellings and isolated in small parcels to the west and south. Only 11 acres of R-3 land remains to be developed, in the southeast part of East Whiteland. These parcels could support 26 new residences. About 244 acres of R-4 could be developed, accommodating a theoretical maximum of 2,405 dwelling units. This acreage is primarily on the western boundary of the Township. A preliminary plan for 1,474 multi-family units has already been approved for this particular R-4 land.

All of the commercially zoned land remaining to be developed is located along Route 30, primarily in small, scattered parcels. Approximately 25 acres are zoned C-1. These parcels could support 442,000 square feet of development. Less than 14 acres of developable land is zoned C-2 and could accommodate 239,000 square feet of commercial uses. Less than four acres of C-3 land remains to be developed. About 52,000 commercial square feet could be built on these scattered parcels.

Most of the available, "Professional-Office" land, 70 acres, is zoned PO-1 and is located at the intersection of Routes 202 and 401. Approximately 910,000 square feet of "PO-1" uses could be built here. About 37 acres of PO-2 land is available in the southeast quadrant of the Township. Up to 482,000 square feet could be built here. No land zoned PO-3 remains to be developed.

Nearly 80% of the available, industrial land is zoned L-1. Over six million square feet of industrial uses could be built on these various parcel which are located throughout the Township. Almost 50 acres of GI land is available. This acreage could support 774,000 square feet of GI uses and is located in the eastern area of the Township. No GIM or RIC land remains to be developed.

4. Land Development Overview

Significant subdivision and land development activity has occurred in East Whiteland Township since the adoption of the Township Comprehensive Plan in 1987. There have been 89 of 93 projects which received final approval. These proposals include: 167 single-family dwellings; 1,588 multi-family dwellings; 571 hotel rooms; 444,184 SF of commercial; 1,428,182 SF of office; 734,991 SF of industrial; and 25 industrial lots. Table 3 further details this land development activity. Figure 7 graphically depicts where these projects are located.

III. EXISTING SEWERAGE SERVICES AND CONDITIONS

A. The Existing Sewage System

1. Areas Presently Served by the Collection System

East Whiteland Municipal Authority owns the sewage collection system and leases its operation to East Whiteland Township. The sewer system served a total of 3,574 EDU's (Estimated Dwelling Units) at the end of 1990. Flows at the end of 1990 were approximately 1.052 million gallons per day (mgd). The average daily flow of the system is 50% residential and 50% commercial and industrial. The eastern two-thirds of East Whiteland including all of Route 30 is now served by the system. Please refer to Figure 9, Existing Sewer Service.

The collection system includes a total of 10 pump stations as shown in Figure 8. Design capacities and current flows are listed on Table 4.

2. Permitted and Reserve Flow Capacities

Sewage from East Whiteland Township flows through the Valley Creek Trunk Line into Tredyffrin Township to the Wilson Road Pump Station. The Wilson Road force main transmits flows to the Valley Forge Treatment Plant. East Whiteland Township is allocated certain capacities for the Valley Creek Trunk Line, the Wilson Road Pump Station and Force Main, and the Valley Forge Treatment Plant.

Table 3

LAND DEVELOPMENT IN EAST WHITELAND TOWNSHIP FROM JANUARY 1987 TO JANUARY 1993

Plan Ref. Number		Project Name	Description
1		Westgate Plaza	Commercial Shop. Center 59,400 SF
2		Junction Plaza	Office Building 18,750 SF
3	^	Bulvermo, Inc.	Office Building 92,000 SF
4		Centocor, Inc.	Building Expansion 18,600 SF
5		Conlin Copy	Building Expansion 1,850 SF
6		Eastwood Company	Commercial Development 50,000 SF
7		1st Financial	Bank 7,300 SF
8		Harbison	2 Lot Res. Subdivision
9		Harron Corp.	Office Building 20,750 SF
10		Hill Laboratories	Building Expansion 83,150 SF
11		Sandra Jessup	3 Lot Res. Subdivision
12		Avellino Tire	Commercial Building 6,575 SF
13		Karakelian	Car Wash 3,500 SF
14		Lincoln Court	Building Expansion 83,150 SF
15		Noll and Co.	Building Expansion 4,100 SF
16		Main Line Ind. Park	Office/Industrial Bldg. 93,575 SF
17		Mobil Oil Co.	Industrial Expansion 2,876 SF
18		G.V. Shopping Ctr.	Building Expansion 7,915 SF
19		Conrad Muhley	6 Lot Res. Subdivision
20		McDonalds, Inc.	Restaurant 4,716 SF
21		McIntosh Centre	91 Room Hotel 49,600 SF Retail
22		Paterson	Single Family Dwelling
23		Phila. Memorial Park	Building Expansion 6,600 SF
24		SEPTA	Maintenance Facility 55,000 SF
25		Glen Lincoln Sheraton	157 Room Hotel & Restaurant
26	*	Sophoclese	5 Lot Res. Subdivision
27		Sorbus	Building Expansion 132,116 SF
28	@	Southridge	21 Lot Res. Subdivision
29		Terrace Properties	Office Building 27,900 SF
30		Threadgill	2 Lot Res. Subdivision
31	^	Three Tun Develop.	17 Lot Industrial Park (Subdivision)
32		Unisys	Industrial Subdivision 3 Lot
33		UTZ Foods	Warehouse Expansion 8,934 SF
34		Valley Brooke South	Office Building 234,000 SF
35		Valley Brooke Plaza	122 Room Motel/Commercial 6,300 SF
36		Vishay Corp.	Parking Expansion
37		F. Carroll White	12 Lot Res. Subdivision

Table 3 (continued)

LAND DEVELOPMENT IN EAST WHITELAND TOWNSHIP FROM JANUARY 1987 TO JANUARY 1993

Plan Ref. Number		Project Name	Description
38		Whitehorse Ind. Park	Industrial Development 70,592 SF
39	*	Whitewoods	20 Lot Res. Subdivision
40		Winthrop Corp. Park	Industrial Subdivision 5 Lot
41	@	Wyckfield	54 Lot Res. Subdivision
42		G.V. Corp. Center	Penn State Building 75,000 SF
43		G.V. Corp. Center	Office Building 118,750 SF
44		G.V. Corp. Center	Shopping Center 63,035 SF
45		G.V. Corp. Center	Office Building 126,000 SF
46		G.V. Corp. Center	Office/Warehouse Bldg. 91,952 SF
47		G.V. Corp. Center	Parking Expansion
48		G.V. Corp. Center	Office/Warehouse Bldg. 104,400 SF
49		Valleybrooke III	Office Building 124,741 SF
50		Shared Medical Sys.	Building Expansion 70,600 SF
51		Camilla Hall	Convent
52		Star Business Sys.	Building Expansion 4,960 SF
53		Bitter	Single Family Dwelling
54		Samar	Single Family Dwelling
55		G.V. Corp. Center	201 Room Hotel/Conference Center
56		Wallace	5 Lot Res. Subdivision
57		J. and L. Lumber	Parking Expansion
58		G.V. Corp. Center	Office Building 27,500 SF
59		Acme	Office Building 90,588 SF
60		G.V. Corp. Center	Office Building 59,250 SF
61		G.V. Corp. Center	Office Building 62,700 SF
62		WAWA, Inc.	Convenience Store 3,000 SF
63		Pompeii	Office Building 42,278 SF
64		David and David	Retail Development 32,000 SF
65		Smith Industries	Building Expansion 15,240 SF
66		Pioggia Enterprises	Single Family Dwelling
67		Gordon	Single Family Dwelling
68		Novelli	Building Expansion 1,910 SF
69		Wallice	Single Family Dwelling
70		DiMarcello	Building Expansion 1,680 SF
71		Kimberton Dev. Corp.	Single Family Dwelling
72		F. Carroll White	Single Family Dwelling
73		Apple Press	Commercial Building 9,500 SF
74		K & S Auto	Building Expansion 1,557 SF

Table 3 (continued)

LAND DEVELOPMENT IN EAST WHITELAND TOWNSHIP FROM JANUARY 1987 TO JANUARY 1993

Plan Ref. Number		Project Name	Description
75		C.V. Golf Course	Building Addition 3,416 SF
76		F. Carroll White	Single Family Dwelling
77		George Bullard	Single Family Dwelling
78	^	Rogers Way	20 Lot Residential Development
79	^	Wellington Woods	114 Unit Multi-Family Development
80		U-Haul	Warehouse 22,150 SF
81		Mobil Gas Station	Building 972 SF
82		Immaculata College	Library 52,281 SF
83		Mike Stoler	Single Family Dwelling
84		Peoples Light & Theatre	Addition 5,920 SF
85		Graphic Impressions	Addition 3,988 SF
86		Linda J. Reilly	Single Family Dwelling
87		Bigley	Single Family Dwelling
88	^	DiMascio	Four (4) Lot Subidivison
89	@	Celia	Warehouse Addition 10,000 SF
90	@	A-1 Security	Office & Storage Building 18,685 SF
91	^	Staats	Self-Storage Facility 73,056 SF
92	* ♦	Valley Crossing	1,474 Unit Multi-Family Development
93	*	National Liberty-Fox Co.	Office Building 192,780 SF

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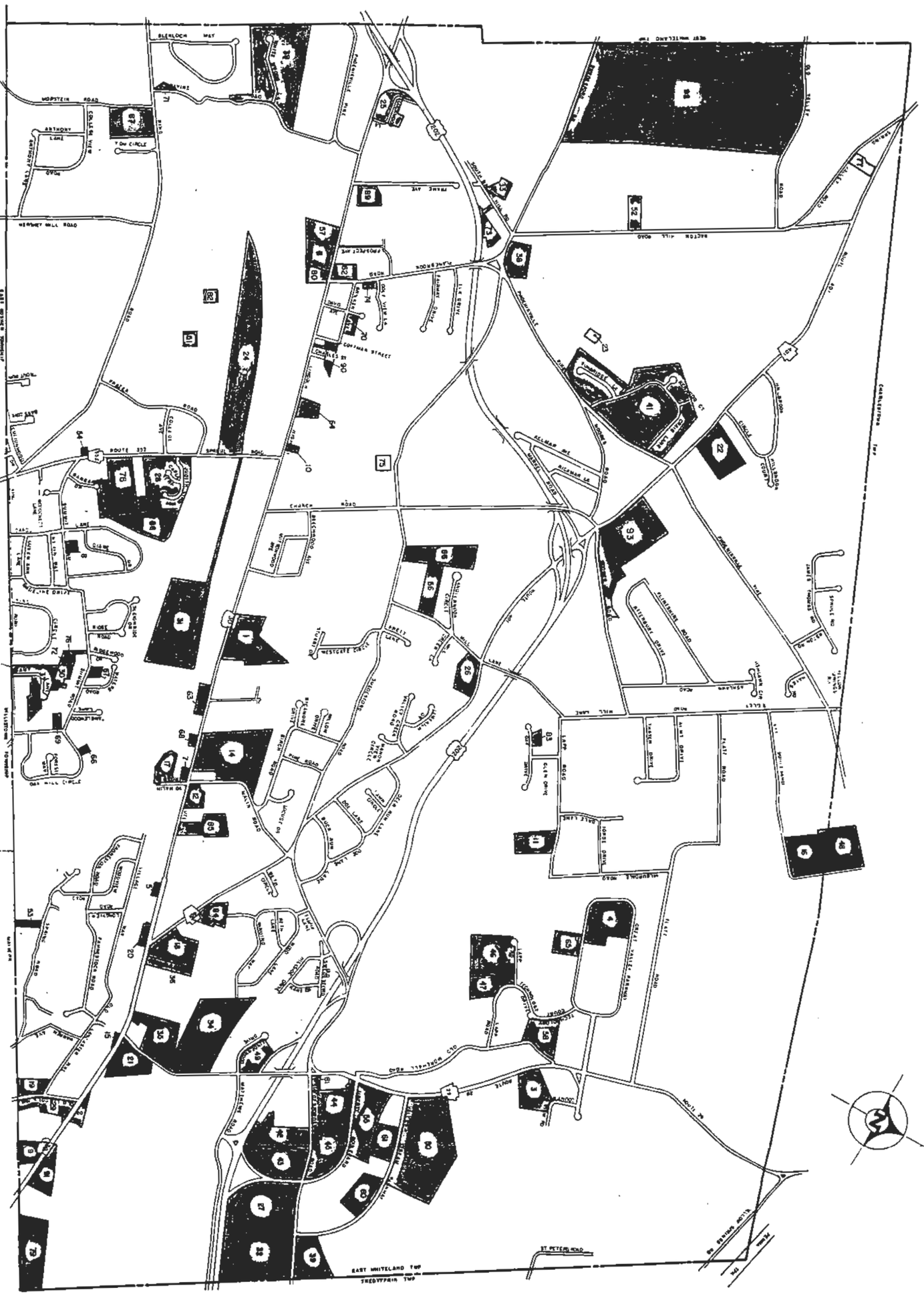
* Preliminary Plan Approval Only
^ Construction Not Started
@ Currently Under Construction
♦ Currently Hovnanian Companies are proposing to construct 464 Single Family Dwellings on the Valley Crossing site in lieu of the preliminary approved 1,474 Multi-Family Dwellings. The wastewater treatment limited to the proposed 464 Single Family Dwellings is being considered by neighboring West Whiteland Township in conjunction with the development of the Church Farm School property.

Source: Kohli and Associates, Inc., January 1993



EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

FIGURE 7
SUBDIVISION / LAND DEVELOPMENT
ACTIVITY APPROVED SINCE 1987
TO JANUARY 1993

SOURCE:
EAST WHITELAND TOWNSHIP

BASE MAP PREPARED BY KOHLI & ASSOCIATES, INC. 1986

Table 4

EAST WHITELAND TOWNSHIP SEWAGE COLLECTION SYSTEM: PUMP STATION CAPACITIES AND FLOWS

Station No.	Name	Rated Max. Daily Capacity in GPD	Current Max. Daily Flow, in GPD	Max. Daily Flow When Service Area is Fully Developed in GPD
1	Deer Run	23,450	13,250	14,700
2	Mill Lane	2,073,600	415,000	2,036,000
3	Wilberdale	623,520	162,100	600,000
4	Lee Blvd.	350,000	63,500	350,000
5	Meadowview	115,200	12,250	20,000
6	Flat Road	427,500	57,800	427,500
7	Lapp Road	472,000	51,300	412,000
8	Westgate	890,000	72,000	650,000
9	Church Rd.	700,000	56,000	700,000
10	Frame Ave.	360,000	36,000	360,000

Source: Kohli and Associates, Inc., January 1991

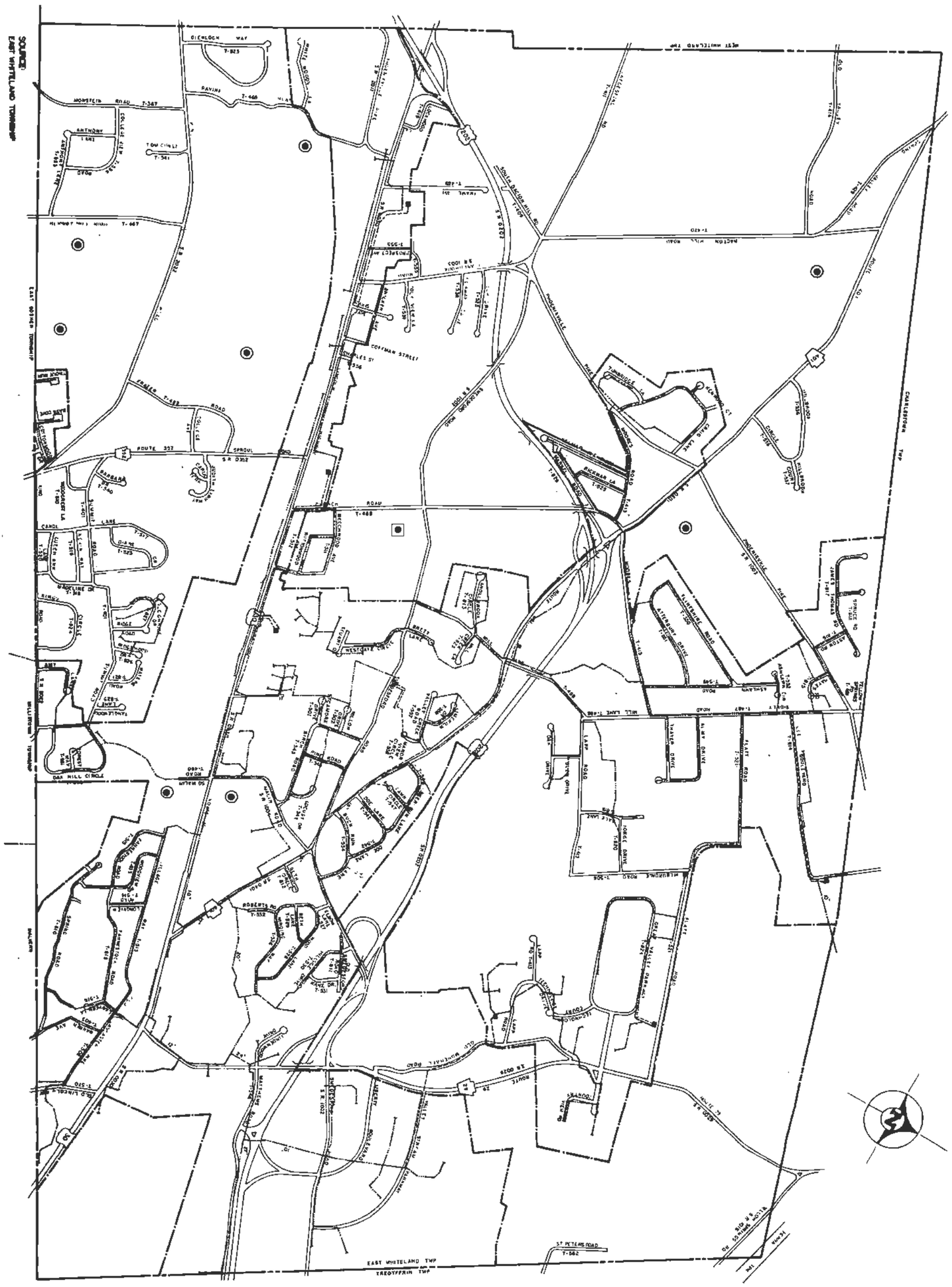


FIGURE 8

EXISTING SEWERED AREA - 1981

EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

East Whiteland Township has been allocated a peak capacity of 9.5 mgd (4.0 mgd average) in the Valley Creek Trunk Line. Flows allocated to East Whiteland at the Wilson Road Pump Station, based on its current capacity, are 5.855 mgd peak and 2.34 mgd average. The Wilson Road Force Main, like the Pump Station, has a limited capacity and East Whiteland's allocation for the force main is 6.553 mgd peak and 2.62 mgd average daily flow. Based on the current plant capacity of 8 mgd, East Whiteland is allotted 1.7 mgd (average flows). East Whiteland has allowed Charlestown Township to utilize 0.3 mgd (average) of its allocation through the Valley Creek Trunk Line and the Wilson Road Pump Station and Force Main. Although the Valley Creek Trunk Line is capable of accepting the ultimate flows from East Whiteland Township, the plant capacity and the Wilson Road Pump Station and Force Main limit the actual flows possible through the system.

3. Treatment Systems

The Township collection system connects to the Valley Forge Sewer Authority plant for its sewage treatment and disposal. The sewage plant provides both primary and secondary treatment, and involves pressure filtration. The treatment system is an activated sludge method. The system was built in 1976 and is in excellent condition. The Municipal Authority plans to expand the collection system as funds become available. The expansion would accommodate infill development in western areas of the Township. No operating problems have been reported at this time. Treated effluent from the system is discharged into the Schuykill River.

4. Private Systems

Seven private package plants operate in East Whiteland Township. These treatment plants are generally located in the southern and western portions of the Township. The Bishop Tube Company operates one facility. The treatment plant has a designed operating capacity of 10,000 gallons per day. The present average daily flow is 4,000-5,000 gallons per day (gpd). There are future plans to upgrade and expand the system to a designed operating capacity of 20,000 gpd.

The second private treatment facility is an aeration system that serves the Great Valley High School. The average daily flow for the system is 9,000 gpd which is well under the designed operating capacity.

The third private package serves Immaculata College. The College has two Imhof gravity-fed treatment facilities. The combined designed operating capacity of the two facilities is 117,200 gpd. The average daily flow is 28,700-50,000 gpd. Ongoing repairs such as new flow and filtration devices are being done. Malvern Court Mobile Home Park operates the fourth private package plant in the Township. The type of treatment system is aeration with sand filter beds. The designed operating capacity is 24,000 gpd and the average daily flow is 16,000-18,000 gpd.

The fifth private package plant serves the Sun Refining and Marketing Company. No data is available on this facility other than it is a gravity separation system to insure that no oil is released into the Valley Creek.

Villa Maria House of Studies operates the sixth private treatment plant in East Whiteland. The designed operating capacity is 15,000 gpd and the average daily flow is 10,000 gpd.

The seventh private treatment plant serves the William Henry Apartments. The treatment system involves an aeration method. The designed operating capacity is 70,000 gpd and the average daily flow is 35,000 gpd. There are plans for the treatment facility to be expanded by the addition of a surging tank.

All of the private package plants, except those serving Villa Maria and William Henry Apartments, discharge into the Valley Creek, Little Valley Creek or their tributaries. The other two facilities discharge into tributaries of the Ridley Creek. The Bishop Tube Company and Sun Refining and Marketing Company are the only facilities which have industrial flow; the remaining private treatment facilities have domestic flow.

One community on-lot sewage disposal operates in the Township as of 1990. The facility serves the K.D. Markley Elementary and Intermediate School. No information is available on the type of system or design flows at the present time.

5. Operation and Maintenance

East Whiteland Township leases the operation and maintenance of the collection system from the East Whiteland Municipal Authority. The Valley Forge Sewer Authority is responsible for treatment and disposal. The private systems are operated and maintained by their respective owners.

B. The Valley Forge Wastewater Treatment Facility

The Valley Forge Wastewater Treatment Facility has been designed for a nominal 8 mgd based on a design year of 1985, although this capacity should be satisfactory through 1992-1993. The treatment plant is situated on two tracts of land totalling approximately 24 acres in Schuylkill Township on the west bank of the Schuylkill River at its confluence with Perkiomen Creek. The acreage associated with the Treatment Plant provides the capacity for expansion up to 20 mgd with conventional treatment. The treatment process selected for the facility has been designed to accomplish 95 percent total (BOD) removal during the summer months and at least 85 percent during the remainder of the year.

C. Sewage Disposal Problem Areas

Approximately one third of the East Whiteland Township land area relies on individual on-lot disposal systems. In general, existing systems have operated with few reports of malfunction. The 1987 Comprehensive reported that there were two concentrations of on-lot disposal system malfunctions in the Township reported by Chester County Health Department data. The two concentrations are: 1) the area east of PA Route 352 and north of Summit Road, and 2) the area between Swedesford Road and U.S. Route 30 from Penflex to the Township line. The malfunctions are primarily due to shallow depth to bedrock and other soil characteristics which prevent adequate percolation.

The new Rt. 30 sewer system, built over the last three years, has in large part remedied problems in the second area. Occasional failures continue to be reported along Bacton Hill Road, College View Road and Beechwood Avenue, however, these are individual lots with no concentrations of large numbers of failures. Currently the sewer design for the Beechwood and Buttonwood Avenue area is in progress.

In addition to these documented areas, much of the Township is situated on highly porous soils and rock formations, where conventional on-lot systems areas are not permitted according to DER facility standards (see next section).

D. Soils Analysis and Wetland Identification

1. Overview

Soils characteristics are important determinants for locating land use activities, and particularly on-lot sewage disposal systems. By analyzing man-made constraints such as land already developed or proposed for development as well as natural constraints such as shallow, alluvial, or wet soils, the most appropriate locations for on-site application of sewage effluent can be determined.

Wetlands are frequently found in conjunction with headwaters and ponds. Vegetation, soils and the level of water below the surface determine the location of wetlands. Wetlands can include a diversity of forms such as marshes, bogs, swamps or similar areas. These areas are essential because they support a unique array of wildlife and natural processes such as groundwater recharge. They are also important to reduce the hazards of flooding and maintain good water quality. The U.S. Army Corps of Engineers and the PADER recognize the importance of wetlands and promote regulations to protect them.

The wetlands in East Whiteland are spread throughout the Township. Many wetlands can be found within floodplain land of the Valley Creek or in areas where water tends to pond or drain slowly. One of the Township's largest wetlands is located northwest of the intersection of Old Morehall Road and

Swedesford Road, according to National Wetlands Inventory Maps. Please refer to Figures 9 and 10, Flood Plains - Wetland and Soil Limitations.

Given that much of East Whiteland is already served by public sewer and that additional service is planned or under consideration through efforts like this 537 Plan, this Soils Analysis uses existing information and is more of a summary than an exhaustive, new treatise. The analysis helps target those areas where on-lot sewage disposal, of whatever type, could be a significant problem.

EAST WHITELAND TOWNSHIP

CHESTER COUNTY, PENNSYLVANIA

0 2000 4000

Scale (in feet)

N

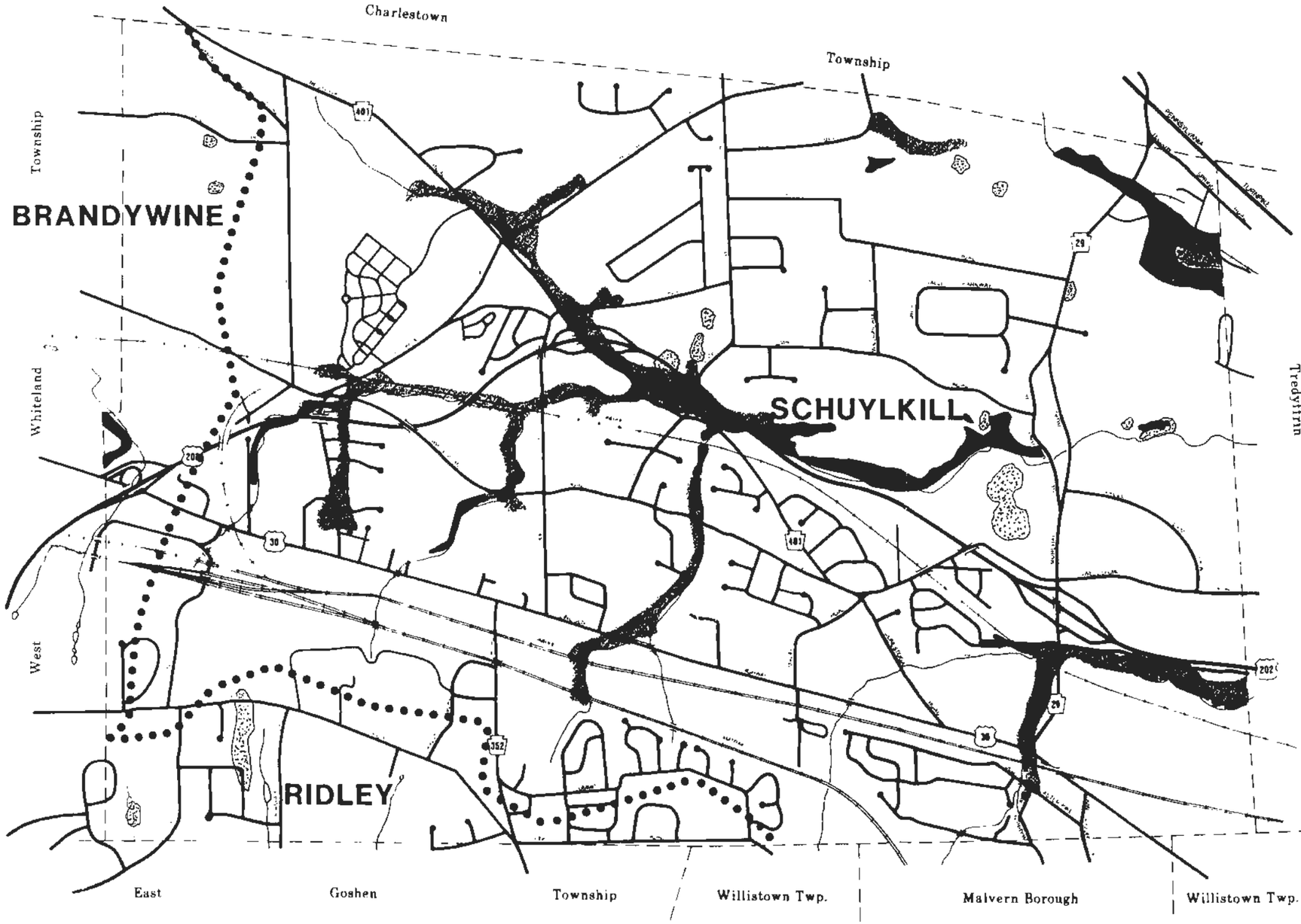


FIGURE 9

FLOOD PLAINS / WETLANDS

- ALLUVIAL SOILS
- SEASONAL HIGH WATER TABLE (0-2 ft. from surface)
- FIA 100 YR. FLOOD BOUNDARY (where ext. beyond above)
- DRAINAGE BASIN BOUNDARY
- WETLANDS

Sources Soil Survey of Chester County, U.S.D.A. 1963
Flood Hazard Boundary Map, FEMA 1983
AND EAST WHITELAND COMPREHENSIVE PLAN 1987

REVISED TITLE BY KOHLI & ASSOCIATES, INC. 1991

Base Map Prepared by the Chester County Planning Commission, 1986.

EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

FIGURE 10

SOIL LIMITATION FOR SUB SURFACE DISPOSAL

LEGEND

- SOIL GROUP "A"
- SOIL GROUP "B"
- SOIL GROUP "D"
- SOIL GROUP "E"
- SOIL GROUP "F"
- MAN MADE SOIL

SOURCE:
SOIL SURVEY FOR CHESTER & DELAWARE COUNTIES, PA. USDA, 1963
TITLE 2 OF PA CODE PART I, SUB PART C, CHAPTER 73, APPENDIX A, 1989

BASE MAP PREPARED BY KOHLI & ASSOCIATES, INC. 1991.

1000 0 1000 2000 3000

2. Information Sources

This Soils Analysis describes the various soil types found in East Whiteland, locates them and discusses their general suitability for on-lot sewage disposal systems.

Information was taken from:

- Soil Survey - Chester and Delaware Counties, PA, Series 1959, No. 19 by U.S.D.A. (issued May, 1963)
- Master Sewer Plan for Chester County, PA (as revised by the Chester County Planning Commission, 1970)
- East Whiteland Township Comprehensive Plan (1987)
- Pennsylvania Sewage Facilities Act, as amended (Act of 1965, P.L. 1535, No. 537)
- Title 25 of the Pennsylvania Code, Part I, Subpart C, Article I, Chapters 71, 72, and 73 and Appendix A Soils Groups (as revised thru 1989)
- Chester County Health Department, Soil Survey Interpretation Sheets, Nos. 12 thru 52 (undated)

3. Profiles and Classifications of Soils

Soils are grouped by their ability to perform certain functions. The group hierarchy includes:

- Profiles. The sequence of natural layers, or horizons, in a soil.
- Series. Soils that have profiles almost alike. The major horizons are similar. Examples include Brandywine and Edgemont.
- Soil Types. Soils in a series that are alike except for the texture of their surface layer. Examples include Glenelg Silt Loam and Glenelg Very Stony Silt Loam.
- Soil Phases. Soils within a type that vary according to slope, degree of erosion, number and size of stones, etc. These differences are great enough that they could not be managed the same way. Such soil types are divided into soil phases.

Examples include Brandywine Loam 3 to 8 percent slopes and Brandywine Loam 8 to 15 percent slopes.

- Soil Associations. Broad categories referring to the main soil patterns of the particular area containing a few major soil groupings and several minor ones.

The 1987 East Whiteland Comprehensive Plan generally describes the two distinct Soil Associations found in the Township:

- "Hagerstown-Conestoga-Guthrie Association. That portion of the Township lying roughly north of the Lincoln Highway, Route 30. These soils are deep, silty material on limestone, characteristic of the Chester Valley physiographic region, and are generally well-suited for urban development.

- Glenelg-Manor-Chester Association. These are shallow to deep, rather silty and channery soils, on grayish-brown schist and gneiss. This association is the dominant one in Chester County as a whole, and particularly to the south of the Chester Valley. The problem of erosion connected with this association presents only moderate limitation on development."

The 1987 Plan language referring to soil types is still applicable:

"The specific soils pattern within East Whiteland itself is dominated by Hagerstown Silt Loam, to the north of Lincoln Highway, and by Manor Loam and Glenelg Channery Silt Loam in the southern portion. The central area of the Township is dominated by Conestoga Silt Loam, Lawrence Silt Loam, Lindside Silt Loam, Guthrie Silt Loam and Hollinger Silt Loam which are found along the various streams and drainage-ways. In addition, a significantly large pocket of Edgemont Channery Loam is found in the wooded slopes on the north slopes near North Valley Hills."

Other soils series are found in limited areas in the Township. Chewacla, Congaree, Wehadkee, Bedford, Glenville, Croton and Worsham are found along streams in the upland areas of East Whiteland. A small pocket of Brandywine soil is in the northwest corner of the Township.

The Pennsylvania State Department of Environmental Resources (DER) categorizes soil series into 15 groups according to the soil's ability to accommodate on-site sewage effluent. DER further organized the soil groups in ranges classified as A (very suitable) to F (unsuitable). These groups and ranges are found in Appendix A of Chapter 73, noted above. Table 5 is taken from "Appendix A" and lists those soils found in East Whiteland and their

sewage-related characteristics. Descriptions of each soil profile can be found in Appendix D of this report.

DER's correlation of Soil Groups to their sewage-effluent characteristics are:

A - Soils that do not have seasonal high water table, severe flooding hazard, extreme shallowness, or limestone bedrock; grouped according to probable percolation rates. (Includes Groups 1 thru 10)

B - Soils series that are underlain by limestone and have a high hazard of groundwater pollution through solution channels. (Group 11)

C - Well drained soils that are shallow or very shallow to bedrock. (Group 12)

D - Soil series that occur on floodplains and have a high flooding hazard. Not suitable for subsurface disposal systems. (Group 13)

E - Moderately well drained soils on upland sites. These soils have seasonal high water tables which is the major limitation on use for subsurface disposal systems. (Group 14)

F - Somewhat poorly, poorly, and very poorly drained soils on upland sites. These soils have high water tables and are unsuitable for subsurface disposal systems. (Group 15)

Appendix A further notes:

"Stoniness and Rockiness: Extremely stony phases of any soil and areas with common outcrops of bedrock and considered unsatisfactory for subsurface systems. Moderately stony areas may be used with care.

Made lands, Mine dumps, Strip mine spoils, and Sanitary landfills: These miscellaneous land types need individual, local determinations of depth, water table conditions, and soil texture as they affect percolation rates and effluent renovation in a stabilized area."

When mapped, these soil groups create a pattern across the Township of what areas would or would not be suitable for on-lot sewage disposal. Soil Group A comprises approximately 28% of the Township land area and is generally suitable for on-lot disposal systems. The majority of the Township is Soil Group B which, although the soils themselves are generally suitable for on-lot disposal, is much less suitable because of its limestone underlayment. Soil Group C is not found in the Township. Soil Groups D, E and F comprise 15% of the Township and are generally unsuitable for on-lot disposal. Man-made land, usually greatly disturbed areas like quarries, account for the last 5% of the Township acreage.

Table 5

SUITABILITY FOR SUBSURFACE DISPOSAL OF EFFLUENT OF SOIL GROUPS FOUND IN EAST WHITELAND

Soil Group	Soil Series	Symbol	Characteristics	Percent of Township*
A	Brandywine Edgemont Glenelg Manor	Br Ec Ge Mg, Mh, Mk, Mm	suitable - deep & moderately deep, well-drained soils	28%
B	Conestoga Hagerstown Hollinger	Cm Ha Ho	underlain by limestone	52%
C	(None in E. Whiteland)		shallow to very shallow & well-drained soils	0%
D	Chewacla Congaree Lindside Melvin Wehadkee	Ch Cn Ls Mn We	unsuitable - floodplain soils	4%
E	Bedford Glenville	Bd Gn	marginal - moderately well-drained soils with seasonal high water table	5%
F	Croton Guthrie Lawrence Worsham	Cr Gu La Wo	unsuitable - poorly drained soils with high water table	6%
(no letter)	Man-made land		questionable - quarries, land fills, mines, dumps, etc.	5%
			Total	100%

Note: * These percentages are estimates and for planning purposes only.

Sources:

1. East Whiteland Township Comprehensive Plan, 1987
2. Soil Survey for Chester and Delaware Counties, PA, USDA, 1963
3. Title 25 of Pennsylvania Code, Part 1, Subpart C, Chapter 73, Appendix A, 1989

The 1987 East Whiteland Comprehensive Plan generally addresses the suitability of certain soils for on-site sewage disposal. Map 3, Soil Conditions, of the Plan depicts soil conditions according to shallow depth to bedrock, stoniness, and high erosion potential. The residual areas of Map 3 generally correspond with suitability for on-site sewage disposal.

4. Conclusions

Given that much of East Whiteland is already served by public or private community sewer systems and that much of the area remaining is planned for future sewage service, the foregoing soils analysis is important primarily for those limited areas of the Township where on-lot systems are expected to be used either now or in the foreseeable future. This Section combined with other elements of this 537 Plan can help target existing and potential problems with sewage disposal systems. If an area of poor suitability for sewage disposal is targeted for development, then public or private community sewage disposal systems should be a required condition. However, any new public or private community sewage disposal system involving stream discharge shall diffuse the effluent via wetland or marsh areas.

E. Existing Centralized Water Systems

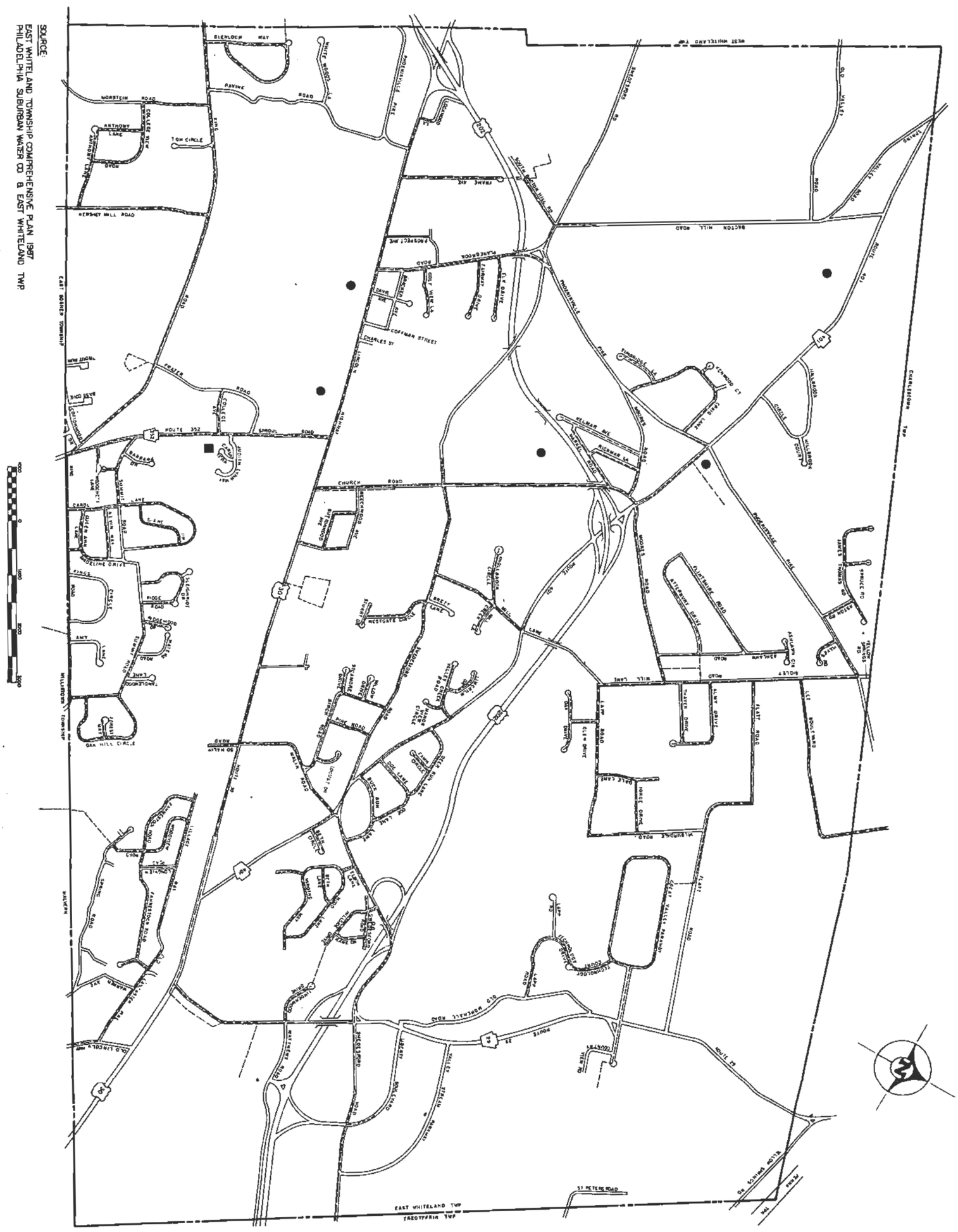
The present water service areas within the Township as shown in Figure 11.

1. Public

Public water supply is provided to East Whiteland Township by the Philadelphia Suburban Water Company. The system has been expanded to include all but the extreme northeast and northwest corners of the Township.

The Philadelphia Suburban Water Company also supplies water to parts of Charlestown, East Goshen, Easttown, Schuylkill, Tredyffrin, and Willistown Townships as well as portions of Delaware and Montgomery Counties. The Water Company has interconnections with the Great Valley Water Company in West Whiteland and the Malvern Water Company to supplement their systems for emergency use.

The Philadelphia Suburban Water Company obtains its water supply from four separate wells and the Pickering Creek. The wells have a cumulative capacity of 5.46 million gallons per day and are located in East Whiteland and Tredyffrin Townships. The actual average daily use of this water supply in 1984 was 3.47 million gallons.



SOURCE:
EAST WHITELAND TOWNSHIP COMPREHENSIVE PLAN 1987
PHILADELPHIA SUBURBAN WATER CO & EAST WHITELAND TWP

BASE MAP PREPARED BY KOHLI & ASSOCIATES, INC. 1991

FIGURE 11
EXISTING WATER SERVICE

EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

EAST WHITELAND TOWNSHIP

Chester County, Pennsylvania

Township Engineer: Kohli and Associates, Inc.

FIGURE 12

SEWAGE FACILITIES PLAN

(PROPOSED SEWAGE AREA)

- 1990 VALLEY FORGE SERVICE AREA
- 1990 RIDLEY CREEK SERVICE AREA
- 1991 - 1996
- 1996 - 2001
- 2001 - 2006
- BEYOND 2006
- ALTERNATE DISPOSAL

— DRAINAGE RIDGE LINE

4000 0 1000 2000 3000

BASE MAP PREPARED BY KOHLI & ASSOCIATES, INC. 1991

The storage facilities of the Philadelphia Suburban Water Company consist of four tanks located in East Whiteland and Tredyffrin Townships. The four reservoirs have a cumulative storage capacity of 11.46 million gallons.

2. Private

The northwestern corner of the Township and a few other isolated properties rely on individual on-site wells for water supply. The Malvern Court Mobile Home Park is the largest of these individual systems, and includes two private wells.

IV. PROPOSED SEWAGE SERVICES AND CONDITIONS

A. Expected Wastewater Disposal Needs

Most of East Whiteland is within the service area of the VFSA. The current 1990 sewage flows are 1.052 MGD. Based upon the development listed on Table 3 and shown on Figure 7, projected sewage flow is 3.09 MGD. Table 6 displays the future sewage flow projections for each of the Study Areas to beyond 2006. There has been no flow allocated for the landfill and two quarries. Flows are based upon 275 gallons per equivalent dwelling unit (EDU). Resultant flows could be reduced based upon implementation of water consumption reduction devices in new construction.

B. Areas Planned to be Served and Timing of Proposed Service

The areas which are planned for sewage service are closely related to the VFSA service area. The delineation of Study Areas which follows, outlines each of the areas to be served by the VFSA within a specified time frame. These Study Areas are also discussed on Table 6.

The areas not planned for service by 2006 generally include that portion of the Township outside the Schuylkill River watershed. These areas collectively are Study Area 7 and are also not planned for service based upon their potential for providing suitable on-lot methods of wastewater disposal. In Chapter 71 (Refer to Appendix A), Subsection 71.15(a)(1), Requirements to Revise Official Plans, it is stated that "Municipalities shall review their official plans and, if necessary, revise them at least once every five years." Relative to this requirement, the Township, if necessary, can reevaluate their wastewater disposal needs in 1996 and revise this Official Plan as needed.

Table 6

EXPECTED WASTEWATER DISPOSAL NEEDS - FUTURE FLOW PROJECTIONS

1990 Service Area (Study Area 1):

Current Flows:		1.05 MGD
Anticipated Demand[1]:		0.33 MGD
Total Flow Projection:		1.38 MGD Total

1991 to 1996 Projections (Study Area 3):

Anticipated Demand:	813 EDU =	0.22 MGD
Total Year 1996 Flow Projection =		1.60 MGD

1996 to 2001 Projections (Study Area 4):

Anticipated Demand:	700 EDU =	0.19 MGD
Total Year 2001 Flow Projection =		1.79 MGD

2001 to 2006 Projections (Study Area 5):

Anticipated Demand:	1725 EDU =	0.47 MGD
Total Year 2006 Flow Projection =		2.26 MGD

Beyond 2006 Projections (Study Area 6):

Anticipated Demand:	2700 EDU =	0.74 MGD
Total System Demand[2]:	=	3.00 MGD

Alternate Disposal Projections (Study Area 7):[3]

Anticipated Demand:	2680 EDU =	0.79 MGD
Total Township Demand:	=	3.79 MGD

Notes:

1. Anticipated demand includes allowance of 1205 EDU's for all areas within the 1990 Service Area for projects which are either approved and/or under construction, no flow is allocated for the landfill. Flow based on 275 GAL./EDU. Resultant flows could be reduced based on implementation of water consumption reduction devices in new construction.

2. 1990 Service Area anticipated demand includes all areas so noted on Figure 8.

3. All other areas which are noted for alternate disposal include areas outside of drainage basin, areas suitable for on-site disposal, or areas served by private systems.

1. Delineation of Study Areas

To facilitate analysis of the viable wastewater alternative for portions of the Township, it is subdivided into "Study Areas" having similar characteristics and current methods of sewage disposal. The following parameters are utilized in the determination of Study Areas: zoning, existing land use, population growth projections, drainage basins, existing problem areas, and soil types.

The delineated Study Areas are as follows (see Figure 12):

Study Area 1 comprises the 1990 Valley Forge Sewer Authority (VFSA) Service Area within the Township and is designated a study area for that reason. This area encompasses the majority of the Township and contains some of the R-1, R-2, R-3, R-4, LI and GI Zoning Districts and all of the commercial, professional office and RIC Zoning Districts.

Study Area 2 is located along the southern Township boundary east of the King Road and PA Route 352 intersection. This area is zoned R-2 and was selected as a study area because it is within the 1990 Ridley Creek Service Area.

Study Area 3 contains four separate areas which are planned for public sewage service between 1991 and 1996. The three areas are as follows:

Study Area 3A consists of a small area north of U.S. Route 30 at the southeastern corner of the Township. This area is zoned entirely LI and is bounded by Study Area 1 which is served by the VFSA.

Study Area 3B is along Church Road just north of U.S. Route 30. This entire area is zoned R-2 and abuts Study Area 1. The area is comprised of soils which are underlain by limestone.

Study Area 3C is situated south of the Conrail and Amtrak rail lines extending along PA Route 352 to the border with East Goshen. A portion of this area extends west to Ravine Road and is north of the abandoned rail line. Portions of this area contains developments with capped sewer. The northern portion of this area is zoned LI and the balance is zoned R-2.

Study Area 3D is located south of the rail line along the Township's border with Malvern and Willistown. This area is zoned predominantly R-2 with small portions of the north zoned R-3 and LI. While this area is comprised of good soils, there is substantial steep slope prevalent.

Study Area 4 is comprised of two separate areas which are planned for public sewage service between 1996 and 2001. The two areas are as follows:

Study Area 4A is in the central portion of the Township on the north and south side of Swedesford Road east of Church Road. This area is adjacent to Study Area 1 and is zoned entirely R-1. The area consists of soils underlain by limestone.

Study Area 4B is situated in the northwestern portion of the Township along PA Route 401 from the Route 202 interchange to the boundary with Charlestown. This area is zoned almost entirely R-1; the area adjacent to Moores Road is zoned PO-1. This area also abuts Study Area 1 which is served by VFSA. The area contains substantial floodplain, poorly drained and high water table soils as well as soils underlain by limestone.

Study Area 5 consists of two district areas which are planned for public sewage service between 2001 and 2006. The two areas are as follows:

Study Area 5A is located northeast of the Routes 202 and 29 interchange as well as an area extending west along Route 202. This area is surrounded by Study Area 1 and is the site of the former quarry. Much of the soils are made and are underlain by limestone. The majority of this area is zoned R-4, however, the northern portion is zoned GI and the western appendage is zoned R-2.

Study Area 5B is in the western portion of the Township along both sides of Bacton Hill and Planebrook Roads. The southern portion of this area abuts Study Area 1 and is zoned R-2. The northern area is zoned LI. This area contains floodplain, poorly drained and high water table soils and consists predominantly of soils underlain by limestone.

Study Area 6 contains five separate areas which are envisioned to be served by public sewage beyond 2006. The five areas are as follows:

Study Area 6A is located in the northeastern corner of the Township and consists of the two large quarries and the Township's Valley Creek Park. Much of the soils in this area are made land and underlain by limestone. This area is zoned almost entirely GIM; the Township Park is zoned GI.

Study Area 6B is situated in the southern portion of the Township abutting Tredyffrin. This area is

zoned entirely GI and contains soils which are poorly drained and underlain by limestone.

Study Area 6C is along the northern Township boundary between PA Route 401 and Phoenixville Pike. This area is zoned entirely R-1. Portions of this area contains poorly drained soils underlain by limestone and the extreme northern portion is characterized by steep slope.

Study Area 6D is in the west central portion of the Township on both sides of Phoenixville Pike. This area is essentially lands of the Philadelphia Memorial Cemetery and abuts Study Area 1. The area is zoned entirely R-1 and contains poorly drained and high water table soils underlain by limestone.

Study Area 6E is located south of Route 202 west of Church Road. Portions of this area abut Study Area 1. The majority of this area is the Chester Valley Golf Course and is zoned entirely R-1. The area is almost exclusively comprised of soils underlain by limestone and contains some floodplain and high water table soils.

Study Area 7 is comprised of two distinct areas which are planned for alternate methods of sewage disposal. The Study Area is generally outside the Schuylkill River Watershed. The two areas are as follows:

Study Area 7A encompasses the southwest corner of the Township. This area contains Immaculata and Villa Maria and most of the area is within the Ridley Creek Watershed. The area is zoned essentially R-1 with exception of the William Henry Apartments which are zoned R-4. Most of this area is comprised of good soils, however, some pockets of floodplain and high water table soils exist.

Study Area 7B is along the western border of the Township with West Whiteland from Route 202 north to Charlestown. This area essentially within the Valley Creek sub basin of the Brandywine Creek Watershed and is the site of the Valley Crossing proposal. The area contains four zoning districts: R-1 in the north, R-4 in the central, and LI and GI in the south. The area south of Route 202, part of Study Area 1, is the only abutting area with public sewage service. The northern third of this area is comprised of good soils characterized by steep slope, while the remaining two thirds contains soils underlain by limestone with some poorly drained soils.

C. On-Lot Sewage Disposal Maintenance Program

An on-lot sewage disposal maintenance program is envisioned to serve as an interim measure until all areas are served by the public system. The Township could employ several municipally sponsored programs including:

- regular articles on on-lot sewage disposal system maintenance in the Township newsletter
- educational programs through the Code Enforcement Officer, Township Engineer and Township Manager via literature dispersal to applicants for building and/or occupancy permits
- educational programs through the East Whiteland Township Planning Commission including workshops on an annual basis regarding relevant topics of interest to the residents, during which sewage disposal system maintenance can be discussed
- a speakers program with officials and representatives from the County to instruct residents on problems and needs pertaining to maintenance of on-lot disposal systems

For the short term, the Township newsletter will be used as the communication vehicle on the subject, along with direct communication with applicants for building and/or occupancy permits. In addition, the Township will send a questionnaire each year to all residents who utilize on-lot sewage disposal systems to ascertain the state of maintenance for their systems. In the event of problems with malfunctioning systems, a Township representative will respond and assist the residents with the resolution of their problem.

V. EVALUATION

A. Sewage Alternatives Evaluated

The following seven sewage alternatives are those evaluated for the seven Study Areas:

Alternative 1 — The Study Area is presently sewered. No justification for modifying the present configuration of sewers has been found, therefore, only one alternative has been developed. It is envisioned that the present sewer system will accommodate the sewage needs of the Study Area for the foreseeable future, including all existing and potential development activities.

Alternative 2 — This alternative involves connection of the Study Area to the Township Municipal Authority Sewer System. Connection could occur through

the construction of a central sewer main extending through the Study Area.

Alternative 3 — The Study Area presently utilizes on-site disposal practices. This alternative proposes the continued use of on-site disposal for existing and future development in the area.

Alternative 4 — This alternative proposes a central sewer collector system with either surface or subsurface disposal. Such a configuration of sewage facilities is flexible.

Alternative 5 — Using a system of central sewers, this alternative proposed tie-in of new subdivisions in the area to one or more community lagoon and spray irrigation systems for treatment and disposal. Since the location of the prospective spray irrigation sites and the sewer collectors cannot be identified at this time, a map of the alternative is not provided.

Alternative 6 — This alternative proposes the construction of a central sewer system with tie-in to a new tertiary treatment facility with stream discharge which shall be designed based on the following criteria:

a) Sewage collection and treatment facilities will be designed to handle a minimum of one day average daily design detention capacity.

b) Sand filtration that will prohibit any untreated sewage from entering a stream.

c) A treatment process that will meet or exceed the water quality parameters of the existing stream.

d) The effluent discharge shall be drawn from below ground level from holding tanks in order to reduce its temperature.

e) The effluent discharge will be diffused via the existing an/or proposed wetlands where it will be detained within a stream corridor.

f) The effluent will be disinfected with methods other than chlorination.

Alternative 7 — This alternative proposes that the Study Area tie in to sewer system of the adjacent municipality.

B. Sewage Alternatives

Study Area 1

Alternative 1

Description: Study Area 1 is presently sewered. No justification for modifying the present configuration of sewers has been found, therefore, only one alternative has been developed. It is envisioned that the present sewer system will accommodate the sewage needs of the Study Area for the foreseeable future, including all existing and potential development activities.

Study Area 2

Alternative 1

Description: Study Area 2 is presently sewered. No justification for modifying the present configuration of sewers has been found, therefore, only one alternative has been developed. It is envisioned that the present sewer system will accommodate the sewage needs of the Study Area for the foreseeable future, including all existing and potential development activities.

Study Area 3

Alternative 2

Description: This alternative involves connection of Study Area 3 to the East Whiteland Township Municipal Authority Sewer System. Connection could occur through the construction of a central sewer main extending through the Study Area.

Rationale: The alternative is a technically feasible configuration for providing conventional sewers to the Study Area.

Environmental Impacts: The provision of public sewers to this area would result in the export of water.

Development Impacts: The extension of a sewage collector into this Study Area would promote development. The sewering of adjacent parts of Study Area 4 and 7 may also be encouraged.

Comprehensive Plan: The provision of conventional sewers to this area of the municipality is consistent with the Comprehensive Plan.

B. Sewage Alternatives - continued

Estimated Costs: The estimated capital cost of this alternative is $4,500,000.

Alternative 7

Description: This alternative proposes that Study Area 3D tie in to sewers of the Malvern Borough Municipal Authority. The tie-in would occur via a central sewer connector running along Sugartown Road.

Rationale: The alternative is technically feasible and would eliminate the possibility of on-site malfunctions.

Environmental Impacts: Construction of this configuration of sewers would lead to the export of water from the area.

Development Impacts: The extension of a sewer collection would tend to encourage development in Study Area 3D, however, this Study Area is small and bounded by the rail lines on the north.

Comprehensive Plan: The provision of public sewers to this area is inconsistent with the Comprehensive Plan.

Estimated Costs: The estimated capital cost of this alternative is $12,400,000.

Study Area 4

Alternative 2

Description: This alternative involves connection of Study Area 4 to the East Whiteland Township Municipal Authority Sewer System. Connection could occur through the construction of a central sewer main extending through the Study Area.

Rationale: The alternative is a technically feasible configuration for providing conventional sewers to the Study Area.

Environmental Impacts: The provision of public sewers to this area would result in the export of water.

Development Impacts: The extension of a sewage collector into this Study Area would promote development. The sewering of adjacent parts of Study Area 6 and 7 may also be encouraged.

B. Sewage Alternatives - continued

Comprehensive Plan: The provision of conventional sewers to this area of the municipality is consistent with the Comprehensive Plan.

Estimated Costs: The estimated capital cost of this alternative is $5,400,000.

Study Area 5

Alternative 2

Description: This alternative involves connection of Study Area 5 to the East Whiteland Township Municipal Authority Sewer System. Connection could occur through the construction of a central sewer main extending through the Study Area.

Rationale: The alternative is a technically feasible configuration for providing conventional sewers to the Study Area.

Environmental Impact: The provision of public sewers to this area would result in the export of water.

Development Impacts: The extension of a sewage collector into this Study Area would promote development. The sewering of adjacent parts of Study Areas 6 and 7 may also be encouraged.

Comprehensive Plan: The provision of conventional sewers to this area of the municipality is consistent with the Comprehensive Plan.

Estimated Costs: The estimated capital cost of this alternative is $6,200,000.

Study Area 6

Alternative 2

Description: This alternative involves connection of Study Area 6 to the East Whiteland Township Municipal Authority Sewer System. Connection could occur through the construction of a central sewer main extending through the Study Area.

Rationale: The alternative is a technically feasible configuration for providing conventional sewers to the Study Area.

B. Sewage Alternatives - continued

Environmental Impact: The provision of public sewers to this area would result in the export of water.

Development Impacts: The extension of a sewage collector into this Study Area would promote development. The sewering of adjacent parts of Study Area 7 may also be encouraged.

Comprehensive Plan: The provision of conventional sewers to this area of the municipality is consistent with the Comprehensive Plan.

Estimated Costs: The estimated capital cost of this alternative is $14,000,000.

Alternative 3

Description: Portions of Study Area 6 presently utilize on-site disposal practices. Alternative 3 proposes the use of on-site disposal for existing and future development in the area.

Rationale: On-site systems in the area have functioned effectively, and future population densities are expected to remain low. Soils are generally suited to subsurface disposal of wastewater, but Study Area 6 does contain pockets of soils which restrict conventional subsurface disposal.

Environmental Impacts: On-site systems benefit recharge of the groundwater, however, most of this Study Area is underlain by limestone.

Development Impacts: This alternative is not expected to promote development in the Study Area.

Comprehensive Plan: The alternative is consistent with the Comprehensive Plan.

Estimated Costs: There are no public costs associated with this alternative.

Study Area 7

Alternative 3

Description: Study Area 7 presently utilizes on-site disposal practices. Alternative 3 proposes the use of on-site disposal for existing and future development in the area.

B. Sewage Alternatives - continued

Additional Considerations: Lands must be obtained in order to implement this alternative. The surface or subsurface disposal areas must be properly operated and maintained in order to avoid water degradation.

Alternative 5

Description: Using a system of central sewers, this alternative proposes tie-in of new subdivisions in the area to one or more community lagoon and spray irrigation systems for treatment and disposal. Since the location of the prospective spray irrigation sites and the sewer collectors cannot be identified at this time, a map of the alternative is not provided.

Rationale: It is suggested that this alternative may be appropriate to serve neighborhoods in the Study Area where lot averaging or clustering occurs. The configuration of lots in these types of development may cause individual on-site systems to be impractical.

Environmental Impacts: Spray irrigation benefits groundwater recharge. Spray irrigation systems must be properly operated and maintained to avoid possible surface or groundwater degradation. Study Area 7B is the most difficult due to wet soil conditions which severely restrict this type of system.

Development Impacts: Implementation of this alternative may promote clusters of development in the Study Area but is not expected to influence development in other area.

Comprehensive Plan: Spray irrigation systems are consistent with the Comprehensive Plan.

Estimated Costs: The estimated capital cost of this alternative is $9,500,000.

Additional Considerations: Land for the land application site must be obtained in order to implement this alternative.

Alternative 6

Description: This alternative proposes the construction of a central sewer system with tie-in to a new tertiary treatment facility with stream discharge which shall be designed based on the following criteria:

B. Sewage Alternatives - continued

a) Sewage collection and treatment facilities will be designed to handle a minimum of one day average daily design detention capacity.

b) Sand filtration that will prohibit any untreated sewage from entering a stream.

c) A treatment process that will meet or exceed the water quality parameters of the existing stream.

d) The effluent discharge shall be drawn from below ground level from holding tanks in order to reduce its temperature.

e) The effluent discharge will be diffused via the existing and/or proposed wetlands where it will be detained within a stream corridor.

f) The effluent will be disinfected with methods other than chlorination.

Rationale: By having Study Area 7B served by a package treatment facility development requiring public sewer can be serviced and on-site malfunctions in the Study Area would be eliminated. This will not burden the Township's collection system and will not require any additional capacity at VFSA.

Environmental Impacts: Possible surface and groundwater degradation from on-site system malfunctions would be eliminated. Such package treatment facility will provide an effluent equal or better than the existing stream quality which will help support aquatic life during drought periods.

Development Impacts: The construction of a package treatment facility will service development in the Study Area under existing Township zoning since the Township requires public sewer for multi-family developments.

Comprehensive Plan: The Comprehensive Plan is inconsistent with existing zoning and approved land development in the Study Area and has not as yet been amended to conform to existing conditions.

Estimated Costs: The estimated capital cost of this alternative is $9,200,000.

B. Sewage Alternatives - continued

Additional Considerations: Implementation of this alternative would require the appropriate discharge permits from the Department of Environmental Resources.

Alternative 7

Description: This alternative proposes that Study Area 7A tie into the East Goshen Township sewer system. The tie-in would occur via gravity or force main connections to the Ridley Creek Sewage Treatment Plant.

Rationale: The alternative is technically feasible only when the Ridley STP expansion is approved and would eliminate the possibility of on-site malfunctions. The East Goshen Township Act 537 Update of December 1992 includes the connection of Immaculata College and William Henry Apartments to the STP.

Environmental Impacts: Construction of this configuration of sewers would keep water within the Ridley Creek Watershed and prevent degradation of the headwaters of the Ridley Watershed.

Development Impacts: The extension of a sewer collection would tend to encourage development in Study Area 7A, however, this Study Area substantially developed.

Comprehensive Plan: The provision of public sewers to portions of this area is consistent with the Comprehensive Plan.

Estimated Costs: The estimated capital cost of this alternative is $4,000,000.

Alternative 7 - For Study Area 7B

Description: This alternative proposes that portion of Study Area 7B comprising of tracts zoned R-4 (Valley Crossing site limited to proposed 464 single family dwellings) and possibly R-1 may tie into the West Whiteland sewer system. The tie in would occur via gravity or force main connection to the future sewage treatment facility with disposal of effluent by spray irrigation on the adjacent Church Farm School property to be acquired by West Whiteland Township.

B. Sewage Alternatives - continued

Rationale:	The alternative is technically feasible only when the East Whiteland and West Whiteland Townships' 537 Plans, specifically addressing the service area for the proposed sewage treatment plant, is developed and the new sewage treatment with disposal of effluent by spray irrigation is approved.
Environmental Impact:	The development of the proposed sewage treatment plant with disposal of effluent by spray irrigation on the Church Farm School property would keep water within the Brandywine Basin and prevent degradation of the headwaters of the Brandywine Watershed.
Development Impact:	The sewer collection would be limited to the portion of Study Area 7B as described above in East Whiteland Township and the areas of the Church Farm School property in West Whiteland Township and thus the development of the new sewage treatment plant will not encourage development beyond the limit of the study area.
Estimated Costs:	The estimated capital cost will be developed upon updating the joint (East and West Whiteland Townships') 537 Plan which will address the service area of the new sewage treatment plant.

C. Institution Alternatives Necessary to Implement Recommended Official Plan

As the VFSA facility is expanded and upgraded, East Whiteland Township will obtain further sewage capacity.

D. Relationship of the Township's Official Plan to Other Plans

1. Federal

From a conceptual and policy planning standpoint, the COWAMP 208 Plan and this Official Plan relate well to one another. The population forecasts compare favorably as discussed earlier.

From the standpoint of sewer versus non-sewer alternatives for wastewater disposal, the two plans also compare favorably. Centralized treatment is proposed in this Official Plan, where accessible or reasonably accessible. Relative to specific sewer service area delineation, the two plans differ somewhat. In the State's Plan, existing (1978) and proposed (2000) sewer service areas were delineated. The existing sewer service areas were incorrect in that only the Initial Service Area of VFSA was shown. The proposed sewer service areas were delineated without an

understanding of the planning and zoning activities underway in the Township. The discrepancy should not pose any problem, however, the COWAMP 208 Plan Report states, "the COWAMP 208 Plan will provide a general delineation of sewer service area boundaries which will need refinement based on detailed local conditions, this, as well as the scheduling of Sewer Service Areas should be performed by the municipality in cooperation with the County Planning Agency."

An additional concern of COWAMP/208 is the implementation of public education programs and management procedures to ensure that on-lot disposal practices are made environmentally sound. East Whiteland Township has recognized the need for management practices and may implement such practices where necessary.

A final concern of COWAMP/208 as it relates to wastewater management in East Whiteland Township involves stream discharge by non-municipal sewage treatment plants. The stream discharge of the five private package plants are the only points of discharge within East Whiteland Township.

The discharge has been granted a permit by the Pennsylvania Department of Environmental Resources.

2. State

All stream discharges in Pennsylvania must meet certain quality criteria. The criteria are established in the amendments to Title 25, Rules and Regulations, Chapter 93, Water Quality Standards, and are enforced by the Department of Environmental Resources.

3. County

The Official Plan represents a slight departure from the previous 537 Plan, which was the County Master Sewer Plan of 1970. In the 1970 Plan, sewers were proposed for the entire area of the Township except the extreme northwest portion and the southeast corner between the Chester Valley rail line and U.S. Route 30. The 1970 Plan intended to provide public sewers in anticipation that significant development would occur. In general, this plan reflected the prevailing philosophy which favored centralized sewage collection and treatment facilities. This Official Plan reflects an approach favoring a centralized sewage collection system throughout the Township except those areas within the Ridley and Brandywine watersheds.

VI. RECOMMENDATIONS

A. Description

The purpose of this section is to present the selected sewage facilities plan for East Whiteland. The chapter will discuss the relationship of the selected plan to the existing and projected sewage treatment and disposal needs of the Township for the five and ten-year planning horizons.

The Township has chosen to adopt the extension of the VFSA collection lines approach to serve the needs of existing and projected development in Study Areas 1, 3, 4, 5 and 6. Existing and future development in Study Area 2 will utilize the existing public sewage facilities. Study Areas 5 and 6 may be reviewed over the next five years to evaluate the applicability of alternative disposal methods. Study Area 7A and 7B may utilize alternate disposal methods described herein involving on-lot systems and/or treatment facilities subject to further study of these areas.

The Valley Crossing Development, located within Study Area 7B will utilize a package treatment facility as described in Alternative 6 which will discharge effluent into the east branch of Valley Creek, and/or Alternative 7 which will permit the sewer tie-in with West Whiteland Township's sewage treatment plant.

The Chester County Health Department is the designated agency responsible for granting on-site disposal permits and will be retained in its enforcement role. Significant development is anticipated to continue in the Township within the five and ten-year planning horizon. East Whiteland will consider the use of community on-site systems and community lagoon and land application systems within Study Area 7 on a case-by-case basis where otherwise not previously addressed. These types of sewage treatment and disposal facilities will be dealt with as revisions to the Official Sewage Facilities Plan via planning module submission.

B. Rationale for the Selected Sewage Facilities Plan

Extending existing centralized sewer collection lines is considered to be appropriate for most of the Township, principally because of its accessibility and configuration of the sewage service areas as well as the possibility of degrading local streams is eliminated. Although central sewers export water from the service areas, however, an overriding issue is the fact that 72% of the Township is comprised of soils unsuitable for on-lot sewage disposal.

The Township places significant importance on the potential environmental impacts of the various sewage facility alternatives regarding Study Area 7. Alternatives involving the stream discharge of wastewater receive a negative assessment. First, it is Township policy not to degrade the sensitive

headwater areas of the Valley and Ridley Creeks. Second, the export of wastewater through sewage treatment plant stream discharges is perceived as a negative environmental impact, potentially contributing to water shortages.

Community lagoon and spray irrigation systems are viewed favorably in Study Area 7A, even though the development of these systems could involve the construction of central sewage collection lines. This system is appropriate for clustered development patterns and eliminates stream discharges associated with conventional sewage treatment. Groundwater recharge is also a benefit of spray irrigation systems.

The Township also views community subsurface disposal systems favorably in Study Area 7A. Community systems are considered appropriate, where available land for individual on-site disposal systems may be limited. Community systems recharge groundwater and have limited environmental and developmental impacts. Factors which negatively influence spray irrigation and community subsurface disposal systems involve ownership and maintenance responsibility and land availability. Land application and community subsurface disposal systems need to be regularly maintained. If these systems are privately owned and operated, then the Township needs to ensure that the systems are bonded, both for performance and maintenance.

The preliminary approved Valley Crossing Development Plan with 1,474 multi-family dwellings, located within Study Area 7B, if developed, may utilize a package treatment facility as described in Alternative 6 which will discharge effluent into the east branch of Valley Creek. However, if the Valley Crossing tract is developed with 464 single family dwellings, as proposed, then the wastewater from this tract is being considered to be included within the new sewage treatment facility located on the Church Farm School property in West Whiteland Township.

East Whiteland considers private on-site disposal to be an appropriate form of wastewater management for Study Area 7. In areas where on-lot systems perform effectively, it is difficult to justify any change in the configuration of sewage disposal facilities, particularly for low-density development is anticipated for the northern and southern portions of the study area.

C. Five and Ten-Year Planning Horizons

The selected 537 Sewage Facilities Plan satisfies the projected sewer needs of East Whiteland Township for the five and ten-year planning horizons. As discussed earlier, Chapter 71, or Act 208, the Pennsylvania Sewage Facilities Act, requires that the municipality must review this plan and, if necessary, revise it every five years. This mandatory review offers the Township the opportunity to alter the configuration of sewage facilities.

Public sewage collection and disposal facilities will be extended, as the need is determined, to all new development

situated in Study Areas 1, 2, 3, 4, 5 and 6, as indicated on Figure 12, the Sewage Facilities Plan. Study Areas 1, 2 and 3 are to be served by public sewage collection facilities within five years. Study Area 4 is proposed to be served by 2001, while Study Area 5 is to be served by 2006, although Study Area 7 could be served sooner with some alternate disposal method. Study Area 7A has also been considered by neighboring East Goshen Township for inclusion within its sewer system due to its location within the Ridley Creek Watershed. Study Area 7B may utilize a treatment facility as described herein subject to further study, or may be serviced by West Whiteland Township's proposed sewage treatment plant as described herein subject to further study of the area and/or may be served by the public sewage facilities draining to the Valley Forge Sewer Treatment Plant if and when the transmission and treatment facilities could be expanded to accommodate the required estimated sewage flows through year 2006. The extension of public sewers to development in this area is consistent with existing zoning, land use, the configuration of public sewer facilities now available, and population projections for the year 2000.

The major issue regarding future sewage capacity is that while the Valley Forge Sewage Treatment Plant could be expanded and the Township receive its 9.5 mgd, the sewage could not be transported to the plant based upon the existing flow capacity of the Wilson Road Pump Station in adjacent Tredyffrin Township. The current average daily flow capacity of the Wilson Road Pump Station is 2.3 mgd. Until the Wilson Road Pump Station is upgraded to accommodate a potential sewage plant expansion, the Township's policy to serve the study areas indicated in this Plan. If, and when, capacity becomes available, the small private plants that currently exist in East Whiteland will be connected to the Township's system.

On-lot disposal systems will be used to treat and dispose of wastewater in all areas of the Township not specifically referred to above. This configuration of sewage facilities is consistent with the current and projected sewer needs in the Township for the five and ten-year planning horizons. Justification for sewage collection facilities is also found in the nature of the population change in the Township. In addition, the majority of subdivision activity is occurring in the Study Areas proposed for sewage collection facilities.

D. Financing Methods Available

Capital expenditures for sewage facilities in East Whiteland Township may be financed in several different ways. Two sources of financing are: funds raised by the municipality through loans, taxes or assessments; and grants or loans from state and federal agencies. Funding arrangements may be used alone or in combination with each other. This section will explore these two sources of financing capital improvements and will also summarize the role of developers in providing sewage facilities.

EAST WHITELAND TOWNSHIP - ACT 537 PLAN

1. Municipal Funds

There are eight methods commonly employed by municipalities to fund capital improvements. These methods, which involve the use of loans, taxes, or assessments, are summarized below.

a. General Taxation

Municipalities may fund capital improvements on a `pay as you go' basis. Usually, second-class townships such as East Whiteland do not possess a large enough tax base to permit the financing of costly sewage facility capital improvements in this manner.

b. General Obligation Bonds

A municipality may use the taxation power as a pledge to pay the interest and principal to retire a debt incurred for a capital improvement. Rules and regulations specifying the legal procedures for incurring debt in this manner are contained in the Local Government Debt Act. This Act states that there are two types of debt a municipality may incur, electable and non-electable. Each type of debt has different regulations as to the amount which can be borrowed. There is no limit to the amount of debt that a municipality may incur provided a majority of eligible voters give their consent in a referendum. Non-electable debt can, on the other hand, be incurred without voter approval, but the Local Government Debt Act sets specific limits to the amount which can be borrowed. The debt limit for second-class townships such as East Whiteland is set at two hundred fifty percent of the local government borrowing base. The borrowing base is defined as the average annual municipal revenues for the three years prior to the sale of the bonds.

As a means of raising funds, General Obligation Bonds have several benefits. There are security features and standardization for market purposes which lend the General Obligation Bond readily to public sale.

c. Revenue Bonds

Municipalities commonly finance capital improvements by selling revenue bonds. Revenue bonds are financed through fees and service charges as opposed to taxes, as is the case with general obligation bonds. Revenue bonds have some advantages over general obligation bonds. There is no legal debt limit imposed on the amount which can be borrowed and voter approval is not required. Revenue bonds may also be used to finance projects extending beyond municipal boundaries such as

water supply or sewage facility projects. Revenue bonds are normally sold through a municipal authority.

A disadvantage of revenue bonds is that due to the lack of earnings record of the capital improvement, higher interest rates are required as compared to general obligation bonds. Usually, the bond market requires that net revenues exceed the debt service by 20 to 50 percent.

d. Reserve Funds

It is possible for a municipality to fund capital improvements from monies which have been accumulated in reserve funds. Reserve funds can include surplus revenues, proceeds from the sale of capital assets or funds in depreciation reserves. In second-class townships, the proceeds from reserve funds are not likely to be large enough to fund major capital improvement projects.

e. Lease-Purchase

A local government may contract with a private company or authority to construct or obtain a capital improvement. When the improvement is constructed or obtained, it is leased to the local government for a period of time, after which the title is conveyed to the municipality.

f. Special Assessments

Frequently, capital improvements will benefit only a specific area of a municipality. In this instance, a special assessment may be levied on the properties located in the area receiving the capital improvement since it would be inequitable to distribute the cost of the capital improvement among all municipal taxpayers. Unless the capital improvement is inexpensive, it is unlikely that a special assessment can be used to fund the entire cost of the improvement.

g. Assessment Bonds

Capital improvements may be partially or wholly financed through the sale of assessment bonds which are based on assessments levied on properties benefitting from a capital improvement. Assessment bonds are often combined with revenue bonds.

h. Tax Increment Financing

`Front-end funds' for capital improvements can be obtained through tax increment financing. Tax increment bonds are sold on the basis of expected additional tax revenues that will be paid by properties which will

benefit from a proposed capital improvement. Once the capital improvement has been constructed or obtained, the tax increments are placed into a fund to retire the bonds. Tax increment financing is applicable to areas where large scale redevelopment is feasible. This method of finance would not appear to be appropriate for East Whiteland Township.

2. Private Funds

Act 247, Pennsylvania Municipalities Planning Code, Article V, Section 503, grants municipalities the authority to require the provision of sewage facilities in subdivisions. The power vested in Article VII of the Act similarly applies to the provision of sewage facilities in Planned Residential Developments. In addition, the municipality may accept the dedication of open space for public use and maintenance. This would imply that the municipality could negotiate for the dedication of open space which would be used for purposes such as land application of wastewater.

Private funds can be an important consideration in funding sewage facilities. Where development of previously vacant land occurs, it is the general rule that the developer provide sewage facilities. There are instances in East Whiteland Township where developers will bear the cost of providing sewage facilities.

3. Government Subsidies

a. Federal

Environmental Protection Agency Construction Grants for Wastewater Treatment Works. As authorized under Public Law 92-500 - 33 USC, 1281(g)(1), this program of grants by the Environmental Protection Agency is a primary source of funds for the construction of sewage facilities.

Environmental Protection Agency Financing Authority. Public bodies which qualify for the EPA construction grant must still finance a maximum of 15 percent to 25 percent of the cost of the project. The Environmental Financing Authority, created under PL 92-500, 33 USC, 128, provides public bodies a source for marketing bonds in order to finance the non-federal share of wastewater treatment construction costs.

Community Development Block Grants. Block grants, funded by the Department of Housing and Urban Development, are a possible source of monies for sewage facility works. These funds are normally available only after a municipality has unsuccessfully attempted to obtain funds from other federal programs which are specifically directed at funding sewage facilities.

b. State

Department of Environmental Resources. The Department of Environmental Resources offers water pollution control grants totalling two percent of the annual operating and maintenance costs of a sewage treatment facility. This Department also provides a five percent grant to supplement the Environmental Protection Agency construction grants for wastewater treatment works.

4. Summary

The previous discussion has indicated various options available to East Whiteland Township for funding sewage facility capital improvements if desired in the future. It is evident that each option has advantages and disadvantages and that no single type of funding is appropriate for all capital improvements. In order to develop a capital improvement program which makes efficient use of municipal monies, the function of each proposed sewage facility capital improvement must be analyzed.

Sewage facilities can be developed for several different reasons, even though the ultimate objective of each facility, to protect both public health and environment, may be the same. Sewage facilities may be remedial in nature, extending sewers to areas experiencing health hazards from malfunctioning on-lot disposal systems or upgrading facilities which are outdated or are operating beyond the design capacity. Sewage facilities can, on the other hand, be provided as part of a new subdivision. Finally, sewage facilities can be extended to areas where new development would appear both imminent and consistent with municipal policies.

Once the function of the proposed sewage facility capital improvement is defined, those options for funding which appear most appropriate can be isolated. The funding options can be reduced further if the estimated cost of the capital improvement can be determined. The following table summarizes sewage facility capital improvements according to their functions and indicates the types of funding which may be most appropriate in each case.

Table 7

FUNDING ARRANGEMENTS FOR CAPITAL IMPROVEMENTS

Function of the Capital Improvement	Possible Funding Arrangement
Correcting existing problems. Upgrade existing facility. Enlarge existing facility.	Federal and state grants and loans supplemented by municipal funds.
Sewage for new subdivisions or land developments.	Private funds.
Construct sewage facilities for anticipated development. Alter the configuration of existing sewage facilities.	Municipal funds supplemented by federal and state funds.

It is noted that there are specific requirements involved in obtaining federal or state funds. These requirements should be thoroughly investigated before the Township makes any commitments for sewage facility improvements based on securing federal or state monies. Many grant and loan programs receive numerous applications for funds while having only limited resources. Application for a loan or grant does not guarantee approval.

Pennsylvania Sewage Facilities Act

SEWAGE FACILITIES PLANNING

A Guide for Preparing Act 537 Update Revisions

Publication Number 1480

November, 1992

Robert P. Casey, Governor
Commonwealth of Pennsylvania

Arthur A. Davis, Secretary
Department of Environmental Resources

Pennsylvania Department of Environmental Resources
Bureau of Water Quality Management
Division of Municipal Planning and Finance
Harrisburg, Pennsylvania

Preface

This publication was prepared by the Department of Environmental Resources (Department), Bureau of Water Quality Management, to address the official plan update requirements of Chapter 71 of the Department Rules and Regulations promulgated under the Pennsylvania Sewage Facilities Act. It is written for local government officials, consultants and technical staff. This publication is designed to provide an overview of the sewage facilities planning process and to emphasize the importance of good communication with the Department prior to and during the development of a sewage facilities plan. Although the document is intended to assist local government officials in the development of a comprehensive official sewage facilities plan update, it also will be useful to planners, engineers and other consultants.

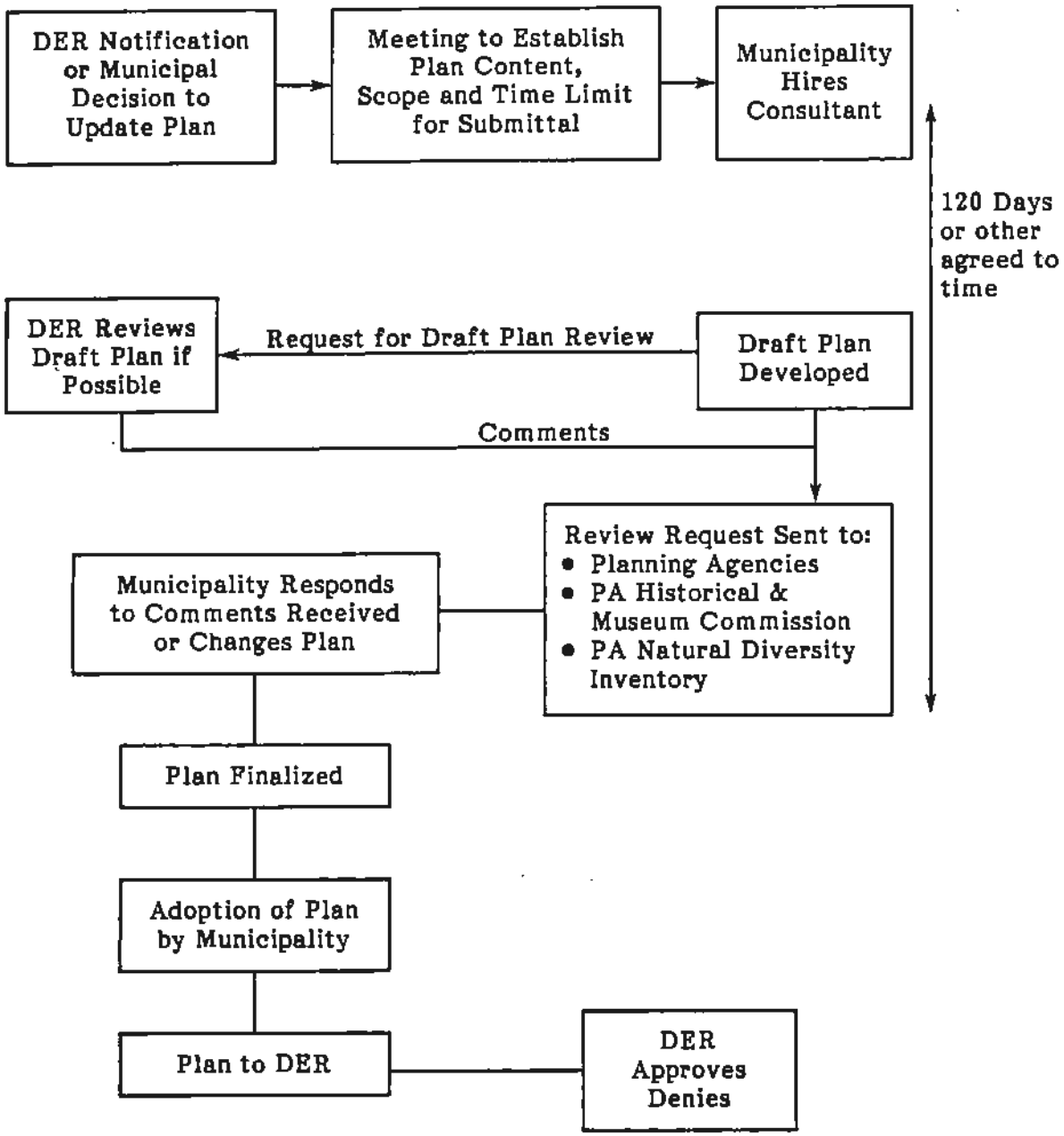
Special emphasis has been placed on several key planning elements that are the result of new environmental directives which prompted the 1989 revisions to Chapter 71 of the Department's Rules and Regulations. These elements have been highlighted by including them in some detail in the appendices of this publication.

The document is not intended to serve as a substitute for good professional judgement, and should not be used as such. Furthermore, the document is not intended to be used in place of or as an interpretation of the specific language of Act 537 or the Rules and Regulations adopted under the Act.

ACKNOWLEDGEMENTS

The Sewage Facilities Planning Program staff thanks the Sewage Advisory Committee's Subcommittee on Act 537 Plan Update Procedures, and Gary Metzger, Scott Novatnak, and Phil Zechman of the Department's field office staff for their help in developing this document.

ACT 537 PLAN UPDATE PROCESS



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A GUIDE FOR PREPARING ACT 537 UPDATE REVISIONS

The purpose of these guidelines is to provide municipal officials and their consultants with a general description of the Pennsylvania Sewage Facilities Act (Act 537) plan update process and to show how the plan can be used as a tool to resolve existing sewage disposal problems and prevent new problems from occurring. While the Department has both statutory and regulatory authority to require these plans, Act 537 plans are municipal plans which are developed by municipalities and must be implemented by municipalities. For this reason, local municipal officials must be actively involved in the plan update process.

I. Background

Act 537, enacted by the Pennsylvania Legislature in 1966, requires that every municipality in the state develop and maintain an up-to-date sewage facilities plan. The Act establishes the requirements for these plans and allows for reimbursement of up to 50% of the eligible costs incurred in preparing the plans. The first Sewage Facilities Plans prepared under Act 537 ranged in scope from countywide comprehensive sewage facilities plans to plans for specific areas experiencing sewage problems within a municipality.

Since 1966, growth patterns and sewage needs in Pennsylvania's municipalities have been constantly changing. Some municipalities have kept pace with the need for adequate sewage facilities, while others have critical needs for improved public treatment facilities. New land developments have increased pressure for new or expanded public treatment facilities, increased use of on-lot disposal systems and privately-owned treatment facilities, or have caused overloads to existing facilities.

Many municipalities have reacted to these changes by updating their Sewage Facilities Plan several times since the original plan was completed. Sewage facilities plan update revisions have resulted in new or improved wastewater facilities to meet the needs of the municipality. Municipal officials may find it necessary to update their Sewage Facilities Plan because it is out-of-date, not implementable, inconsistent with other municipal planning, or does not provide adequate solutions to resolve existing sewage problems or provide for growth.

Municipalities also may be required to update their Sewage Facilities Plan when the Department determines that the existing plan does not adequately meet the sewage disposal needs of the municipality.

II. Purpose of Sewage Facilities Plans

The main purpose of a municipality's Sewage Facilities Plan is to protect the health, safety, and welfare of the citizens living in the municipality by correcting malfunctioning on-lot septic systems, overloaded treatment plants or sewer lines, and wildcat sewers. The existence of untreated or improperly treated sewage in surface water, on the surface of the ground, or in the groundwater allows disease organisms to reach people through drinking water, through insects or other animals, and through direct contact. The most publicized recent transmissions of disease caused by sewage discharges to drinking water supplies were the numerous Giardia

outbreaks in Pennsylvania. This organism causes severe gastric and intestinal distress. Development and implementation of plans for the sanitary disposal of sewage waste can be very effective in resolving existing problems which threaten the public health in a municipality. Such planning is necessary before funding, permitting and construction of improved sewage treatment and disposal systems can begin.

A less obvious, but equally important purpose of the sewage facilities plan is to prevent future sewage disposal problems from occurring. Where sewage facilities plans are consistent with land use planning, zoning and other municipal planning, municipal officials are able to direct new land development to areas where adequate sewage disposal facilities are available or will be available. Sewer lines can be extended in a planned manner, treatment plants can be expanded as planned, and on-lot systems can be installed in soils suitable for such systems and maintained through municipal sewage management programs. Proper planning can prevent future sewage disposal problems associated with improper or poorly planned new land development and the lack of adequate planning for the long-term operation and maintenance of sewage facilities.

Another critical purpose of the Sewage Facilities Plan is to provide protection for both the groundwater and surface waters of the Commonwealth. All citizens of this Commonwealth are guaranteed clean water by the Pennsylvania Constitution. In carrying out this mandate, the Department uses the Official Sewage Planning requirements of Act 537 to prevent and eliminate pollution of the waters of the Commonwealth by coordinating planning for the sanitary disposal of sewage with a comprehensive program of water quality management.

III. Scope of Sewage Facilities Plans

Sewage Facilities Plans can be simple enough to address the repair, replacement and maintenance of malfunctioning on-lot systems in a small village using local resources, or complex enough to provide a planning basis to obtain funding for the design and construction of a multi-million dollar collection, conveyance and treatment system to serve a city. This flexibility in scope allows the Department and municipality to tailor the plan content to the specific planning needs of the municipality. It also allows expansion of the scope to cover a multi-municipal area under a single plan.

IV. Professional Assistance

It is unusual for a municipality to have the expertise to develop a sewage facilities plan update revision without assistance. It is strongly recommended that municipalities consider obtaining professional assistance, even in the early stages of planning.

Municipalities usually seek professional assistance from a municipal authority, planning agency or consulting firm to prepare an official plan update revision. While many of the planning requirements can be completed successfully by general consultants and planners, a plan being prepared to address improved or new collection, conveyance and treatment facilities requires engineering expertise.

A consulting firm with practical experience in the planning of water and sewer systems has the ability to develop and explore various sewage facilities options, and will develop an implementable sewage facilities plan. The consultant's

function is to prepare sewage facilities plans that meet local, state and federal requirements. The municipality retains, by law, the final decision regarding alternative selection and implementation of the plan.

There are a wide range of capabilities in consulting firms, so a municipality should be very careful in selecting a firm. The typical process for selecting a firm to develop an update revision is as follows:

* Establish a list of qualified consultants. This can be done by calling other municipalities that are familiar with such firms, contacting state associations, or checking with professional societies.

* Invite letters of interest and lists of references from the firms selected.

* Narrow the list to three to five qualified firms and request written proposals from these firms. Proposals should include references from municipalities with similar projects completed by the firm.

* Hold interviews during which the firm will present their qualifications, capabilities and experience so that the community can ask questions about their capabilities.

* Contact municipalities for which firms did similar work and ask if the municipalities were satisfied and had plans approved by the Department.

* Select a firm from those interviewed. Notify all others interviewed of the selection.

As with any business or profession, there is a substantial difference in the quality of consulting services among firms. The best way to investigate an individual firm is to inquire about its reputation and performance on previous projects and with other clients. It is suggested that a community check a firm's references before committing to a contract.

Some funding agencies have their own requirements on selecting a consultant. It is recommended that the municipality check with the funding agency for any specific requirements it may have in selecting a consultant.

The community may either request a proposal containing only qualifications and negotiate a fee after selecting a consultant, or it may request proposals containing fee estimates so that cost may be considered in the selection. If a community requests cost proposals, it should be very careful to compare the kind and quality of work proposed related to the cost.

V. Overview of the Sewage Facilities Planning Process

The sewage facilities planning process involves a number of distinct steps which allow for communication between the municipality and Department during the preparation of the plan.

A. Initiation of the Sewage Facilities Plan Update Process

1. Department Required Update Revision

The Department has the power, through Act 537, to require a municipality to update its Sewage Facilities Plan. The notice from the Department to the municipality includes the reasons for the required update, specific areas of the municipality to be included in the study, the time limit for submitting the proposed plan content, and the deadline for completing the plan. When the Department requires a plan update, specific legal responsibilities fall on the shoulders of municipal officials. (These are briefly discussed in Section V.I.) These responsibilities should be discussed with the Department's staff and/or the municipal solicitor.

2. Municipality-Initiated Plan Updates

Municipalities may initiate an update to their Official Sewage Facilities Plan without being required to prepare a plan update by the Department. This may be done because the municipality has determined that its plan is out of date or does not address the need for new or improved sewage facilities.

B. Meeting with the Department

In either case, before a municipality commits money to prepare a sewage facilities plan update, a meeting or other appropriate contact with the Department's regional office is required. Through this contact, the municipality establishes with the Department, the required content of the sewage facilities plan update. The "Act 537 Plan Content Checklist" in Appendix I is used to establish the specific planning elements which must be included in the plan.

This pre-planning meeting is important for several reasons:

1. Both the municipality and the Department may have specific items they want to have included in the plan. The Department makes the final determination as to minimal plan content.

2. While the municipality may include anything they want in their official sewage plan, only certain specific planning costs are eligible for reimbursement under the 50% planning grant. All of the planning elements which may be eligible for an Act 537 planning grant are listed in the "Act 537 Plan Content Checklist," Appendix I. The Department makes the final determination on the eligibility of a specific planning element for planning cost reimbursement.

3. The Department and the municipality may refine the study areas and establish the level of planning required for each study area where more than one exists.

4. Establishment of the proposed plan content of the plan update will allow the municipal officials to get several proposals for plan

preparation from different consultants. This may result in a reduction in the cost of the plan.

C. Submittal of the Proposed Plan Content with Cost Estimates

A municipality should require its consultant to submit cost estimates for completion of each of the required planning elements (see Appendix I). Because the Department may ultimately be reimbursing the municipality 50% of the cost to the municipality to prepare the sewage facilities plan, it is important (though not required) for the municipal officials to forward the cost estimates from the consultant they selected to prepare the plan update to the Department prior to beginning the plan update. A Task/Activity Report or other cost estimating document may be used for this purpose (see Appendix A).

This report allows the Department to screen out costly or unnecessary activities or planning elements already completed in a previous plan. The municipality should not begin development of the plan update until written concurrence on the proposed plan content is received from the Department.

D. Plan Development

The Department may require completion of the Official Sewage Facilities Plan Update within 120 days of the municipal officials' receipt of a notice to update. When two or more municipalities are developing a joint official plan update, the plan may be prepared by one of the municipalities, and submitted on behalf of the other participating municipalities. The plan must be adopted by resolution of the governing body of each municipality to which it relates.

Municipal officials may assign oversight of the plan development to their planning commission, an ad hoc committee or other group. The municipality also may allow a county or an authority to complete the plan. Plans which are initiated by the municipality without a Department notice to do so have no time restraints for completion of the plan unless a subsequent DER notice sets a time limit. In all of the above cases, timely completion of the plan and the content of the plan remains a municipal responsibility. Appropriate agreements or contracts should be developed prior to delegation of authority to another entity to develop or oversee a plan.

If the municipality cannot complete the plan within the 120-day time limit (if such a time limit has been established), a request for a time extension should be sent to the Department with justification of why the plan cannot be completed. The Department may, at its discretion, allow a time extension.

E. Review and Adoption of the Plan by the Municipality

1. Planning Agency Review

When a draft of the plan is completed, a copy must be sent to the municipal planning agency and area wide or county planning agency and/or county health department for comment. Comments received from any of the preceding agencies must be included with the submission to the Department along with responses to these comments from the municipality. Evidence that the official plan has been before

these agencies for 60 days without comment is sufficient to satisfy this requirement. Also, if no comments on the plan were received or made by the previously-mentioned planning agencies, a statement from the municipality reflecting this fact must accompany the official plan submitted to the Department.

The municipality must assure that all of the consistency requirements are addressed in the plan and that any required letters or documents are attached to the plan. (See Appendix B)

2. Public Notification

Public Notice is required as part of the plan update revision process. The following items must be contained in the notice.

a. Name of project.

b. Type of project (sewer line extension, collection, treatment facility, etc.).

c. User fees (PENNVEST or other federally financed projects only).

d. Location or areas of the municipality impacted.

e. Establishment of a 30-day comment and review period.

f. Where and when the plan can be seen for comment and review, preferably the municipal office.

g. Address of municipal office where comments will be accepted.

All comments, the municipal response to comments and proof of public notice must be submitted to the Department with the Sewage Facilities Plan update. If no comments on the proposed plan are received, a statement, from the municipality, reflecting this fact must accompany the official plan submitted to the Department.

The public notice must appear at least once in a newspaper of general circulation in the legal notice section. The consultant should work closely with the municipality in coordinating the comment period, and the time and location where the plan can be reviewed.

3. Department Review of Draft Plans

The Department may agree to review draft plans to provide direction to the municipality prior to the final plan adoption. This service is dependent upon the availability of staff resources. Contact the regional office to make such a request.

F. Plan Implementation

The Sewage Facilities Act requires complete and timely implementation of the activities described in Sewage Facilities Plans. An implementation schedule is developed which identifies the actions required to carry out the

plan's recommendations and when these actions will be completed. If the municipal officials determine that there are financial, legal or administrative barriers which would prevent this complete and timely implementation, they must have these barriers addressed in the plan before it is adopted. If the plan is determined to be inconsistent with other planning or natural resource protection actions or requirements, these inconsistencies must be resolved (see Appendix B).

Resolution of these inconsistencies may range from scheduling action to correct the inconsistency at some point in the project, to actually obtaining a required permit or completing a mitigation action. If plan implementation requires the passage of ordinances, regulations or the development of agreements, these may be developed as part of the planning process or listed in the implementation schedule for future development.

Completion of the plan occurs when the municipality adopts the plan by resolution (see sample resolutions in Appendix F.) Executing the resolution and adopting the plan acknowledges that the municipality assures that its plan meets the requirements of the Act and that it accepts the content of the plan and its implementation schedule.

The Department will monitor the progress of the municipality in meeting the schedule of implementation in the plan. If the municipality anticipates missing a milestone in the implementation schedule, the municipality should notify the Department and provide an explanation.

G. Review by the Department

Once the plan is adopted, it must be submitted to the Department for review and approval. A complete submittal includes those items listed in the Act 537 Plan Content checklist provided in Appendix I. The completeness and general plan checklist must be completed and submitted with the plan.

The Department normally will review and act upon a complete sewage facilities plan update within 120 days of receipt. If an extension of time is needed, the Department will notify the municipality of the need for an additional 60 days to complete its review. If the plan is disapproved, or incomplete, a letter will be sent by the Department listing the plan's deficiencies and establishing a time limit for resubmission. Major revisions to the previously submitted plan including but not limited to a change to the service area, change in the cost of the project or change in the method or location of disposal may require a new review by the planning agency, another public notice process and a new adoption of the modified plan by the municipal officials prior to resubmittal.

H. Planning Grants

When the Department approves the plan, an application for 50% reimbursement of the cost of plan preparation may be submitted to the Department. An application for requesting this reimbursement is included in Appendix G. The application will be processed and paid as soon as possible.

I. Enforcement Powers of the Department

If a municipality fails to update a Sewage Facilities Plan within the time allowed in the regulations or agreed to at the preplanning meeting with the Department or if the municipality fails to implement a Sewage Facilities Plan according to its implementation schedule, the plan may be placed in a disapproved status from the date of the Department's notice, and some restrictions begin. First, no on-lot sewage disposal system permits may be issued by the municipality in the area where the plan is in disapproved status. These limitations may apply to an entire municipality but usually are limited to a delineated planning area. Limitations on permit issuance are an automatic provision of the law.

In addition, new land development planning modules cannot be approved by the Department in the area where the plan is in a disapproved status. The Department cannot issue permits for sewage facilities which discharge to the waters of the Commonwealth in areas which do not have an approved Sewage Facilities Plan. The plan update revision must be submitted to and approved by the Department before new land development planning or permitting approvals can resume.

The Department may, by Order, restrain the municipality or planning agency from approving subdivision plans or issuing building permits in areas of the municipality for which there is no official plan or where the plan is not being implemented. Where collection, conveyance or treatment facilities are overloaded or projected to be overloaded, the Department or municipality may impose a moratorium on new construction. Finally, the municipality may be subject to legal action or fines where pollution incidents are documented.

J. Cooperation

The sewage facilities planning process works best when a cooperative effort between the Department and municipality exists. Good communication and knowledge of the process are critical to the development of a good plan. This communication begins at the preplanning meeting with the Department.

In most cases, the municipality will have a minimum of 120 days to complete and submit a plan to the Department without penalty. If the municipal officials or the consultant do not think the plan can be completed within 120 days, this should be discussed at the first meeting with the Department and a modified schedule for submittal of the plan should be justified. If, during the development of the plan, it becomes evident that an established deadline will not be met, the municipality should immediately notify the Department and submit justification for an extension of the deadline. This will lessen the potential for imposition of restrictions on development or other penalties.

In addition, the municipality should work with the Department as soon as possible to delineate the area or areas of the municipality which will be studied in the plan update. Establishing these areas will limit the imposition of restrictions on new land development to the study areas and prevent the imposition of restrictions in the entire municipality. The municipality should develop documentation supporting the establishment of delineated study

areas and present this information to the Department as soon as possible after receipt of a notification to develop an update revision.

Timely action by the municipality and Department will reduce the impact of any restrictions on new land development by reducing the time period that the plan is in a disapproved status. Timely action will also resolve public health and environmental problems more quickly, thus protecting the citizens of the municipality.

Commonwealth of Pennsylvania

Pennsylvania Code

Title 25. Environmental Resources

Department of Environmental Resources
Chapter 71. Administration of Sewage Facilities Planning Program
Chapter 72. Administration of Sewage Facilities Permitting Program
Chapter 73. Standards for Sewage Disposal Facilities

Authority

Chapter 71 issued under section 1920-A of the act of April 9, 1929 P. S. § 510-20); sections 5 and 402 of the act of June 22, 1937 P. S. §§ 691.5 and 691.402); and section 9 of the act of January 5, No. 537) (35 P. S. § 750.9), unless otherwise noted.

Source

Chapter 71 adopted August 2, 1971, effective August 3, 1971, 1 ough May 30, 1975, effective May 31, 1975, 5 Pa.B. 1402, unless

Notes of Decisions

nvolving subsurface sewage discharge, this chapter's planning and nally apply, in situations involving sewage systems discharging to g requirements of this chapter and the permit requirements of *ck Township v. Department of Environmental Resources*, 530 A.2d 987).

asonable the Board's interpretation that this chapter's permit ly to all community and individual sewage systems. *Haycock t of Environmental Resources*, 530 A.2d 514, 517 (Pa. Commw.

Cross References

25 Pa. Code § 72.1 (relating to definitions); 25 Pa. Code § 73.1 25 Pa. Code § 73.61 (relating to general); 25 Pa. Code § 91.31 ive water quality management); 25 Pa. Code § 94.1 (relating to e § 94.12 (relating to annual report); 25 Pa. Code § 94.14 (relating plans and revisions); 25 Pa. Code § 94.21 (relating to existing § 94.22 (relating to projected overload); 25 Pa. Code § 153.45 5 Pa. Code § 177.10 (relating to sewage disposal); 25 Pa. Code gible costs); 25 Pa. Code § 963.7 (relating to application procedure); 12 (relating to ineligible costs).

Subchapter A. GENERAL

e periods.

GENERAL

ns.

ords and terms, when used in this chapter, have the s, unless the context clearly indicates otherwise:

nsylvania Sewage Facilities Act (35 P. S. §§ 750.1—

Clean Streams Law—The Clean Streams Law (35 691.1001).

Clean Water Act—The Clean Water Act (33 U. 1376).

Equivalent dwelling unit—For the purpose of deter of lots in a subdivision, that part of a multiple commercial or industrial establishment with flows ec per day.

Large volume onlot sewage system—An individ onlot sewage system with a design capacity to di sewage flows which are in excess of 10,000 gallons pe

Limiting zone—A soil horizon or condition in underlying strata which includes one of the following:

(i) A seasonal high water table, whether pe determined by direct observation of the water tal soil mottling.

(ii) A rock with open joints, fracture or sol masses of loose rock fragments, including grave fine soil to fill the voids between the fragments.

(iii) A rock formation, other stratum or soil co slowly permeable that it effectively limits dow effluent.

Local agency—A municipality (or any combinatio acting cooperatively or jointly under the laws of th county, county department of health or joint cou health.

Lot—A part of a subdivision or a parcel of land site or intended to be used for building purposes, wh future, which would not be further subdivided. Wh for a multiple family dwelling or for commerci industrial purposes, the lot shall be deemed to ha into an equivalent number of single family residentia by estimated sewage flows.

Official plan—A comprehensive plan for the pro sewage systems, adopted by a municipality or muni authority or jurisdiction over the provision of submitted to, and approved by, the Department as p and this part.

Official plan revision—A change in the municipali provide for additional or newly identified or existi needs, which may include but not be limited to:

vision—A comprehensive revision to an existing ired when the Department or municipality determines or its parts is inadequate for the existing or future needs of a municipality or its residents or landown-

for new land development—A revision to a ficial plan resulting from a proposed subdivision as .

tudy—A study, survey, investigation, inquiry, re- r analysis which is directly related to an update dies provide documentation or other support neces- cific problems identified in the update revision.

vidual, association, public or private corporation for- profit, partnership, firm, trust, estate, department, gency of the United States, Commonwealth, political cipality, district, authority or another legal entity l by law as the subject of rights and duties. The term bers of an association, partnership or firm and the agency or municipal, public or private corporation or profit.

-A watertight receptacle which receives and retains gned and constructed to facilitate ultimate disposal of her site. The term includes, but is not limited to, the

toilet—A permanent or portable nonflushing toilet reatment in the retaining tank for odor control.

tank—A tank, whether permanent or temporary, to conveyed by a water carrying system.

tank designed to receive sewage where water under vailable.

ing toilet—A device capable of reducing waste materi-

ng toilet—A device for holding and processing human tchen waste employing the process of biological ough the action of microorganisms to produce a e material.

g toilet—A device in which the flushing medium is dition suitable for reuse in flushing.

Sewage—A substance that contains the waste proc or other discharge from the bodies of human bein noxious or deleterious substances being harmful c public health, or to animal or aquatic life, or to th domestic water supply or for recreation, or which c under The Clean Streams Law.

Sewage enforcement officer—The official of the issues permits, reviews permit applications and sewage modules and conducts investigations and inspecti implement the act and the regulations thereunder.

Sewage facilities—A system of sewage collection, ment and disposal which will prevent the discharg inadequately treated sewage or other waste into water wealth or otherwise provide for the safe and sanit disposal of sewage or other waste.

(i) *Individual sewage system*—A sewage facility or privately owned, located on a single lot and serv dwelling unit and collecting, treating and dispos whole or in part into the soil or into waters of this by means of conveyance of retaining tank wastes final disposal.

(A) *Individual onlot sewage system*—An indi tem which uses a system of piping, tanks or collecting, treating and disposing of sewage absorption area or a retaining tank.

(B) *Individual sewerage system*—An individu which uses a method of sewage collection, con and disposal other than renovation in a subsurfac or retention in a retaining tank.

(ii) *Community sewage system*—A sewage faci licly or privately owned, for the collection of sew more lots, or two or more equivalent dwelling units or disposal, or both, of the sewage on one or mor another site.

(A) *Community onlot sewage system*—A c system which uses a system of piping, tanks or collecting, treating and disposing of sewage into absorption area or retaining tank.

(B) *Community sewerage system*—A commun which uses a method of sewage collection, con and disposal other than renovation in a subsurfac or retention in a retaining tank.

(148451) No. 192 Nov. 90

nent program—A program authorized by the official
icipality for the administration, management and
isposal of sewage.

—A municipal authority, established under the Munic-
Act of 1945 (53 P. S. §§ 301—401), which provides,
operates sewage facilities.

ment facilities—An individual or community sewerage
adequately treat sewage flows not greater than 2000
r final disposal using a stream discharge or discharge
he ground.

layer of soil approximately parallel to the soil
ical and physical characteristics of which are distin-
vation or other method of analysis, from the chemical
cteristics in adjacent layers of soil.

he collection of soil horizons, including the natural
he surface.

e division or redivision of a lot, tract or other parcel
r more lots, tracts, parcels or other divisions of land,
in existing lot lines. The enumerating of lots shall
hat portion of the original tract remaining after other
divided therefrom.

Commonwealth—Rivers, streams, creeks, rivulets,
itches, water courses, storm sewers, lakes, dammed
ings and other bodies or channels of conveyance of
rground water, or of their parts, whether natural or
r on the boundaries of this Commonwealth.

Source

§ 71.1 adopted August 13, 1971, effective August 14, 1971, 1 Pa.B.
1972, effective May 15, 1972, 2 Pa.B. 753; amended September 28,
15, 1973, 3 Pa.B. 2176; amended August 30, 1974, effective
a.B. 1805; amended June 9, 1989, effective June 10, 1989, 19 Pa.B.
ding text appears at serial pages (136200) to (136202) and (129911)

Notes of Decisions

r the Department of Environmental Resources to grant a system
sewer system and label it "experimental" in order to determine
stem would work and such a label did not cause the Department of
to incur liability when the system failed. *Londonderry Township v.*
(Pa. Commw. 1988).

§71.2. Scope and time periods.

(a) This chapter is adopted in accordance with t
upon the Department under the act and the Clean
applies to municipalities administering the planning pr
and to persons subdividing land or planning, desi
sewage facilities.

(b) This chapter governs the sewage planning requi
facilities being proposed by municipalities to resol
disposal problems, to provide for the sewage disposal
development and otherwise to provide for future sewag
a resident or landowner in a municipality.

(c) Time periods referred to in this chapter will be
Pa.C.S. § 1908 (relating to computation of time).

Source

The provisions of this § 71.2 adopted August 13, 1971, effective A
1649; amended April 28, 1972, effective May 15, 1972, 2 Pa.B. 753;
1973, effective October 15, 1973, 3 Pa.B. 2176; amended Aug
September 16, 1974, 4 Pa.B. 1805; amended January 9, 1987, effecti
Pa.B. 172; amended June 9, 1989, effective June 10, 1989, 19 P
preceding text appears at serial page (129912).

§71.3. Purposes.

This chapter is separated into five subchapters:

(1) Subchapter B (relating to official plan requir
comprehensive sewage planning mechanism to id
existing sewage disposal problems, to avoid potentia
resulting from new land development and to prov
sewage disposal needs of a municipality.

(2) Subchapter C (relating to new land developm
provides a mechanism for revising sewage facilities p
new land development.

(3) Subchapter D (relating to official plan requir
tive evaluations) provides the planning requireme
alternatives for sewage facilities.

(4) Subchapter E (relating to sewage manageme
vides the requirements for establishing sewage mana

Source

The provisions of this § 71.3 adopted August 13, 1971, effective A
1649; amended April 28, 1972, effective May 15, 1972, 2 Pa.B. 75
1974, effective September 16, 1974, 4 Pa.B. 1805; amended Jan
January 10, 1987, 17 Pa.B. 172; amended June 9, 1989, effective J
2429. Immediately preceding text appears at serial pages (129913) and

B. OFFICIAL PLAN REQUIREMENTS

GENERAL

FFICIAL PLAN PREPARATION

OFFICIAL PLAN APPROVAL

PLANNING GRANTS

Cross References

This subchapter cited in 25 Pa. Code § 71.3 (relating to purposes); (relating to retaining tanks); 25 Pa. Code § 71.64 (relating to small fl 25 Pa. Code § 71.65 (relating to individual and community sew Pa. Code § 71.71 (relating to general requirements).

GENERAL

§71.11. General requirement.

Municipalities are required to develop and implem official plans which provide for the resolution of existi problems, provide for the future sewage disposal n development and provide for the future sewage disp municipality. Official plans shall be developed, submit ment for approval and implemented by municipalities sections §§ 71.12—71.14, 71.21, 71.22, 71.31, 71.41—7 ters C—E.

Source

The provisions of this § 71.11 adopted August 13, 1971, effecti Pa.B. 1649; amended April 28, 1972, effective May 15, 1972, 2 Pa.B 30, 1974, effective September 16, 1974, 4 Pa.B. 1805; amended June 10, 1989, 19 Pa.B. 2429. Immediately preceding text appears at serial

§71.12. Municipal responsibility to revise plans.

(a) Municipalities shall review and revise their offic the municipality or the Department determines that the to meet the existing or future sewage disposal needs of portion thereof.

(b) Two or more municipalities may jointly subm plan. The plan may be prepared by one of the submitted on behalf of participating municipalities if t by resolution of the governing body of each munici relates.

(c) The existence, absence or content of a mu subdivision ordinance or regulation will not relieve the duty to revise its official plan as required by the act and

(d) The proposed plan content shall be consistent ments of the act.

(e) The completed plan shall be submitted with established by the Department under § 71.13(a) (relat responsibility to require official plan revisions).

administrative action taken under this chapter, the ve the burden to establish that its official plan or nplies with the requirements of this chapter.

Source

§ 71.12 adopted August 13, 1971, effective August 14, 1971, 1 il 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended August ber 16, 1974, 4 Pa.B. 1805; amended June 9, 1989, effective June mmediately preceding text appears at serial page (129916).

Cross References

Pa. Code § 71.11 (relating to general requirement); 25 Pa. Code od of submission); and 25 Pa. Code § 71.43 (relating to approval

t responsibility to require official plan revisions.

ent will require a municipality to revise its official ines that the plan does not meet the requirements of ting to official plan requirements for alternative plan, or its parts, is inadequate to meet the sewage pality, its residents or property owners or because of ets, conditions or circumstances which make the plan plan revisions shall be submitted within 120 days of termination under this section, unless the Department time is necessary to complete the planning consistent

ent will notify the municipality in writing of:

s for requiring a plan revision.

plan content requirements as contained in § 71.21 t of official plans) and Subchapter D.

tions for plan completion, including interim deadlines hedules the Department deems necessary.

of the existing official plan.

ent may require two or more municipalities to develop a single official plan. The Department will allow the oint municipal plan if the plan is adopted by each pality.

Source

s § 71.13 adopted August 13, 1971, effective August 14, 1971, 1 April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended ective October 15, 1973, 3 Pa.B. 2176; amended August 30, 1974, 1974, 4 Pa.B. 1805; amended June 9, 1989, effective June 10, 1989, ely preceding text appears at serial page (114763).

Cross References

This section cited in 25 Pa. Code § 71.11 (relating to general requ § 71.12 (relating to municipal responsibility to revise plans); and (relating to private request to revise official plans).

§71.14. Private request to revise official plans.

(a) A person who is a resident or property owner may request the Department to order the municipality t plan if the resident or property owner can show that t not being implemented or is inadequate to meet the resi owner's sewage disposal needs. This request may be r prior demand upon the municipality to so implement o plan and failure of the municipality to reply in either negative within 60 days or, failure of the municipality official plan within the time limits established in the p tion schedule or failure to revise its official plan with established in this chapter. The request to the Departm description of the area of the municipality in questi reasons that the plan is believed to be inadequate.

(b) Private requests to revise an official plan shall that the municipality has refused in writing to revis implementing its plan or has failed to act within established in § 71.13(a) (relating to Department respo official plan revisions) for plan updates or § 71.3 municipal administration of new land development plan for revisions) for new land developments.

(c) No private request to revise an official plan subdivision of land will be considered by the Depa subdivision has received prior approval under mu planning codes being implemented through Article VI o Municipalities Planning Code (53 P. S. §§ 10601—10619

(d) Upon receipt of a private request for revision, th notify the municipality and appropriate official planni the municipality, including a planning agency with area one exists, under the Pennsylvania Municipalities Planni §§ 10101—11202) and the existing county or joint cou health and will request written comments to be submitt The comments shall include a discussion of the co proposed subdivision with municipal or county plan implemented through the Pennsylvania Municipalities Pl

(e) In arriving at its decision, the Department w minimum, the following:

s advanced by the requesting individual in comparison
nd reasons for denial advanced by the municipality.
he proposed land use is consistent with § 71.21(a)
ıg to content of official plans).
submitted as required by subsection (d).
g official plan developed under this chapter.
nent will render its decision, and inform the person
ion and the appropriate municipality, in writing, within
er receipt of the comments required by subsection (d)
f the 60-day comment period when no comments have
he Department refuses to order a revision requested
), it will notify the person, in writing, of the reasons

Source

is § 71.14 adopted August 13, 1971, effective August 14, 1971, 1
April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended
fective October 15, 1973, 3 Pa.B. 2176; amended August 30, 1974,
1974, 4 Pa.B. 1805; amended February 28, 1975, effective March 17,
mended June 9, 1989, effective June 10, 1989, 19 Pa.B. 2429.
ext appears at serial pages (114763) to (114765).

Cross References

ı 25 Pa. Code § 71.11 (relating to general requirement); and 25
ing to private request to require a sewage management program).

l.

Source

his § 71.15 adopted August 13, 1971, effective August 14, 1971, 1
April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended
ffective October 15, 1973, 3 Pa.B. 2176; amended August 30, 1974,
1974, 4 Pa.B. 1805; amended September 24, 1976, effective October
2; reserved June 9, 1989, effective June 10, 1989, 19 Pa.B. 2429.
text appears at serial pages (114766) to (114767).

Notes of Decisions

r to use "revision" or "supplement" procedures is an administrative
Department; if the provisions of 25 Pa. Code § 71.15, 25 Pa. Code
ontents of plan), and 25 Pa. Code § 71.16 (relating to approval of
ave been complied with, Department approval of a supplement is
o require involvement of local planning agencies in site selection, and
fact that proposed buildings will be located in open space areas.
nent of Environmental Resources, 424 A.2d 993, 994 (Pa. Commw.

§71.16. [Reserved].

Source

The provisions of this § 71.16 adopted August 13, 1971, effect
Pa.B. 1649; amended April 28, 1972, effective May 15, 1972,
September 28, 1973, effective October 15, 1973, 3 Pa.B. 2176; am
effective September 16, 1974, 4 Pa.B. 1805; amended October 3, 19
1980, 10 Pa.B. 3917; reserved June 9, 1989, effective June 10,
Immediately preceding text appears at serial pages (114768) to (11476

Notes of Decisions

Provisions of 25 Pa. Code § 71.16 (relating to approval of plan
Department of Environmental Resources v Trautner, 19 Pa. Comm
718, 720 (1975).

§71.17. [Reserved].

Source

The provisions of this § 71.17 adopted August 13, 1971, effec
Pa.B. 1649; amended April 28, 1972, effective May 15, 1972,
September 28, 1973, effective October 15, 1973, 3 Pa.B. 2176; am
effective September 16, 1974, 4 Pa.B. 1805; reserved June 9, 1989,
19 Pa.B. 2429. Immediately preceding text appears at serial pages (1

Notes of Decisions

This section does not provide an exclusive remedy to landowne
which delays or prevents issuance of a sewage permit under
Landowners must also seek direct review by the Commonwealth
Environmental Resources v. Trautner, 19 Pa. Commw. 116, 122, 3

When a property owner can be effectively denied the right to us
time as the municipality has satisfied DER that sewage disposa
conformity with a comprehensive program of water quality m
unreasonable restriction on the use of private land and a confisca
due process. *Department of Environmental Resources v. Trautne*
123, 338 A.2d 718, 722 (1975).

While subsection (c)(3) requires that applicable zoning be co
Environmental Hearing Board must be guided by a decision of
pleas court regarding zoning rights. *Borough of Sayre v. Depar*
Resources, 9 Pa. D. & C.3d 407, 418 (1979).

The Environmental Hearing Board has jurisdiction over an ap
issued under this section as to sewage related problems which are
with nonsewage related issues in a subdivision dispute in the comm
Township Supervisors v. Department of Environmental Resources
702 (1981).

It is proper for DER to order a municipality to provide sewag
subdivision under this section request while the subdivision plan is
is subject to subsequent judicial decision. *Solebury Township Supe*
Environmental Resources, 18 Pa. D. & C.3d 696, 702 (1981).

Source

s § 71.18 adopted August 13, 1971, effective August 14, 1971, 1 April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; reserved ective October 15, 1973, 3 Pa.B. 2176. Immediately preceding text 1243).

OFFICIAL PLAN PREPARATION

f official plans.

lity shall either meet with the Department prior to sk/Activity Report or, submit a Task/Activity Report te form prior to preparation of an official plan to of the planning elements listed in this section are he specific needs of that municipality. A determination a final Department action until the completed plan is municipality and acted upon by the Department. If specific planning needs of the municipality, as deter- artment, the completed plan submitted to the Depart-

nd analyze the physical and demographic characteris- ng area through the following:

ification and mapping of the planning area boundaries bdivision boundaries.

tification and mapping of the physical characteristics area, including streams, lakes, impoundments, natural nnels and drainage basins.

ey and a map and analysis of soils and geological

ng of current population information and historical a.

ntification of wetlands as defined in Chapter 105 n safety and waterway management).

cation of the source of the potable water supply available capacity of public supplies and aquifer yield er supplies.

existing sewage facilities in the planning area through

tification, mapping and description of municipal and individual and community sewerage systems in the including:

(A) The location of treatment plants, main pumping stations and force mains, including t point of discharge and drainage basin served.

(B) A description of problems with the existi ing existing or projected overload under Chap municipal wasteload management) or violatio pollutant discharge elimination system permit, Law permit or other permit, rule or regulation

(C) A description of operation and mainte and the status of compliance with these req requirements of Subchapter E (relating to se programs).

(ii) An identification, mapping and description individual and community onlot sewage systems in including:

(A) The types of systems in use.

(B) A description of problems with the violations of local ordinances, the act, the Clean rule or regulation promulgated thereunder.

(C) A comparison of the types of onlot sewa in an area with the types of systems which are area according to soil, geologic conditions and to standards for sewage disposal facilities).

(3) Delineate and describe through a text, map an

(i) Areas with existing development or platted s

(ii) Land use designations established under Municipalities Planning Code (53 P. S. §§ 10101 residential, commercial and industrial areas.

(iii) Future growth areas and population project

(iv) Zoning; subdivision regulations; local comprehensive plans; and existing plans of a Cor relating to the development, use and protection resources.

(v) Areas where community sewage systems available within a 5-year and a 10-year period.

(4) Identify alternatives which are available to improved sewage facilities for each area of need limited to:

(i) The potential for extension of existing municipal sewage facilities to areas in need of sewage facilities.

(ii) The potential for the continued use of ex nonmunicipal sewage facilities through one or mo

Cross References

25 Pa. Code § 71.11 (relating to general requirement); and 25 g to grants for the preparation of official plans).

lanning.

will not pay grants under the act for information pleted previously or collaterally under local, State or The plan shall incorporate this information by

Source

§ 71.44 adopted August 30, 1974, effective September 16, 1974, 4 uary 9, 1987, effective January 10, 1987, 17 Pa.B. 172; amended ne 10, 1989, 19 Pa.B. 2429. Immediately preceding text appears at

Notes of Decisions

Act (35 P. S. §§ 750.1—750.16) nor this section authorized denial allowing applicant a reasonable opportunity to supply adiditonal d applicant need not have supplied information between time of time of Board of Supervisor's hearing; applicant acted properly in Agency Law (repealed). *D'Amico* v. *Board of Supervisors, Alsace* 481 (Pa. Commw. 1987).

Cross References

Pa. Code § 71.11 (relating to general requirement).

Source

§ 71.45 adopted August 30, 1974, effective September 16, 1974, 4 uary 9, 1987, effective January 10, 1987, 17 Pa.B. 172. Immediately serial pages (21625) and (30792).

Notes of Decisions

ponsibility indicated by this section, local agencies must be given iring sufficient information to support grant of sewage permit. *pervisors, Alsace Township*, 526 A.2d 479, 481 (Pa. Commw. 1987).

Source

§ 71.46 adopted August 30, 1974, effective September 16, 1974, 4 tember 24, 1976, effective October 11, 1976, 6 Pa.B. 2392; reserved ive January 10, 1987, 17 Pa.B. 172. Immediately preceding text 0792) to (30793).

§71.47. [Reserved].

Source

The provisions of this § 71.47 adopted August 30, 1974, effecti Pa.B. 1805; amended September 24, 1976, effective October 11, 197 January 9, 1987, effective January 10, 1987, 17 Pa.B. 172. Im appears at serial page (30793).

§71.48. [Reserved].

Source

The provisions of this § 71.48 adopted August 30, 1974, effecti Pa.B. 1805; reserved January 9, 1987, effective January 10, 1987, 1 preceding text appears at serial pages (30793) and (78907).

Subchapter C. NEW LAND DEVELOP PLAN REVISIONS

Sec.
71.51. General.
71.52. Content requirements—new land development revisi
71.53. Municipal administration of new land development requirements for revisions.
71.54. Department administration of new land developmen requirements for revisions.
71.55. Exceptions to the requirement to revise the official land development.
71.56. [Reserved].
71.57. [Reserved].

Cross References

This section cited in 25 Pa. Code § 71.3 (relating to purpos (relating to general requirement); 25 Pa. Code § 71.63 (relating Pa. Code § 71.64 (relating to small flow treatment facilities); 25 P to individual and community sewage systems); and 25 Pa. Code § requirements).

§71.51. General.

A municipality shall revise its official plan when:

(1) A new subdivision is proposed, except as (relating to exceptions to the requirement to revise new land development).

(2) The official plan, or its parts, is inadequate needs of the new land development.

overed or changed facts, conditions or circumstances nadequate to meet the sewage needs of new land

s required from the Department under section 5 of the w (35 P. S. § 691.5).

Source

s § 71.51 adopted August 13, 1971, effective August 14, 1971, 1 April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended ective October 15, 1973, 3 Pa.B. 2176; amended August 30, 1974, 974, 4 Pa.B. 1805; amended February 28, 1975, effective March 17, ended June 9, 1989, effective June 10, 1989, 19 Pa.B. 2429. xt appears at serial pages (125967) to (125968).

Notes of Decisions

cease and desist order to restrain violation of this section is as not proved that an addition to a mobile home park and the sewage disposal system created an unsanitary condition or nuisance. , 71 Pa. D. & C.2d 203, 209 (1974).

e of holding tank which cannot be distinguished on the basis that it water and does not require the kind of authorization or servicing nks, a permit for a privy should be denied where water pressure is official municipal sewerage facilities plan that would allow a privy pplicant. *Brooks v. Upper Frederick Township*, 68 Pa. D. & C.2d

uthority in the Sewage Facilities Act to condition the granting of an n upon compliance with the provisions of 25 Pa. Code § 71.51 on use). The Clean Streams Law authorizes the adoption of n the use of holding tanks for sewage. *Shell Oil Co. v. Bucks lealth*, 73 Pa. D. & C.2d 91, 98 (1975).

septic tank system was revoked while the service station was under plicant was informed that a holding tank was the only available hat there be an official plan providing for holding tanks at the site ordinance providing for maintenance unreasonably deprives the is property. *Shell Oil Co. v. Bucks County Department of Health*, (1975).

quirements—new land development revisions.

plan revision for new land development shall be partment in the form of a completed sewage facilities ovided by the Department and shall include, but not llowing information:

of the proposal, including:

acilities to be served, density of proposed development e development is residential, commercial or industrial.

of lots including equivalent dwelling units.

(iii) Anticipated sewage flow from the propos individual or community sewerage systems, the on gauged flows or the flows contained in the D Manual. A copy of the manual may be Department's Bureau of Water Quality Manage or community onlot sewage systems, the flows sh §§ 73.16 and 73.17 (relating to absorption are sewage flows).

(iv) Anticipated raw waste characteristics of th

(v) Type of sewage facilities proposed, inclu ment and disposal methods.

(vi) Description of required operation and r required by Subchapter E (relating to sewage ma

(vii) Designation of the person responsible maintenance activities and the legal and fin necessary for assumption of this responsibility.

(2) The relationship of the proposed developme needs, proposed sewage facilities and sewage mana an area delineated by the municipality, including id

(i) The areas included in, and adjacent to, the need of improved sewage facilities.

(ii) Existing and proposed sewage facilities f or delineated lots not included in the project.

(iii) Existing sewage facilities and sewage man the area.

(iv) Other proposed sewage facilities and programs—public and private—in the area.

(v) The method for integrating the proposal sive sewage program in the area as reflected in plan.

(3) An analysis of technically available sewage identified by the municipality and additional alter the Department, including whether each alternative:

(i) Meets the technical requirements of this pa

(ii) Is consistent with local and areawide quality management plans for the area.

(iii) Is consistent with sewage planning polic the municipality.

(iv) Is consistent with the municipalities' com plan for the area.

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ites and is consistent with the requirements of 71.31 (relating to content of official plans; and nsibility to review, adopt and implement official

f an alternative which adequately addresses both the sewage needs of the proposal, through identification

cilities.

ent facilities.

facilities.

n and maintenance activities and requirements.

f an alternative which assures the continued operation of the selected sewage facilities through evaluation and he following:

anagement program requirements.

rative capability for continued operation and mainte-

tion of whether or not it may be implemented

ts with sewer authorities, water authorities or other de services necessary for implementation of the plan.

on of the institutional arrangements necessary for of the plan.

ment may require additional information which is te review of the proposal.

Source

§ 71.52 adopted August 13, 1971, effective August 14, 1971, 1 April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended ctive October 15, 1973, 3 Pa.B. 2176; amended August 30, 1974, 974, 4 Pa.B. 1805; amended June 9, 1989, effective June 10, 1989, ly preceding text appears at serial page (125969).

Notes of Decisions

ease and desist order to restrain violation of this section is as not proved that an addition to a mobile home park and the ewage disposal system created an unsanitary condition or nuisance. 71 Pa. D. & C.2d 203, 209 (1974).

Cross References

Code § 71.53 (relating to municipal administration of new land quirements for revisions); and 25 Pa. Code § 71.61 (relating to

§71.53. Municipal administration of new land dev requirements for revisions.

(a) It is the responsibility of the municipality to act new land development. If the new land development private developer, the developer or his agent Department's sewage facilities planning module and municipality for action.

(b) The municipality shall review and act upon facilities planning module within 60 days of receipt.

(c) Municipal action shall take the form of adopt modifications or refusing to adopt the proposal as municipality's official plan.

(d) For the purposes of this section, no plan rev development will be considered complete unless it incl

(1) The information contained in § 71.52 (r requirements—new land development revisions) and sewage facilities planning module.

(2) Comments by appropriate official planning ag pality, including a planning agency with areawide exists, under the Pennsylvania Municipalities Plann §§ 10101—11202) and the existing county or joint co health. Evidence that the sewage facilities planning before these agencies for 60 days without comment s satisfy this paragraph.

(3) A written commitment from the owner of th nity sewerage facilities to provide service to the development and the conditions for providing the ser

(4) Documentation that the proposal is consister ments of § 71.21(a)(5) (relating to content of offi inconsistencies have been resolved under § 71.31(e) pal responsibility to review, adopt and implement off

(5) A statement from the sewage enforcement o agency having jurisdiction for individual or comm systems in the area where onlot systems are propos

(i) General site suitability for system usage.

(ii) The sewage enforcement officer shall ha receipt of a sewage facilities planning module fro to provide these comments, which shall be b verification of soils tests, general site conditions a available soils information. Evidence that the s officer has been in receipt of the sewage facilities p 20 days without commenting is sufficient to satis

ocumenting newspaper publication—which meets the 71.31(c)—of the proposed plan adoption action when ves one of the following:

ion of a sewage treatment facility.

e in the flow at a sewage treatment facility of greater .

lt in a public expenditure in excess of $100,000.

d to a major modification of the existing municipal rganization or the establishment of new administrative thin the municipal government.

ision of 50 lots or more.

change in established growth projections.

rent land use pattern than that established in the lan.

e of large volume onlot sewage systems.

on of a conflict between the proposed alternative and requirements contained in § 71.21(a)(5)(i)—(iii).

e responsibility of the municipality to implement the ial plan revisions, when reviewing a proposed plan ipality shall consider the information requested in whether the proposed plan revision is consistent with al goals and capabilities.

ty may refuse to adopt a proposed revision to their ew land development for reasons, including, but not

is not technically or administratively able to be

d future sewage disposal needs of the area, remaining ted lots are not adequately addressed.

is not consistent with municipal land use plans and ivision ordinances or other ordinances or plans for se or development.

is not consistent with the comprehensive sewage unicipality as contained in the official plan.

does not meet the consistency requirements of (iii).

municipality refuses to adopt a proposed revision to shall state the reasons for the refusal and forward a ent to the person making the submission, and to the

(h) A municipality may not adopt a proposed revi plan, conditionally or otherwise, until it determines complies with applicable municipal zoning, land use comprehensive plans. If changes to the proposed revisio plan, regulation or ordinance are necessary, the completed prior to adoption of the revision by the mun

(i) Upon adoption of the proposed revision to the municipality shall forward the proposed revision to th the information required in § 71.52 and subsectio Adoption of the proposed revision to the official resolution of the municipality.

Source

The provisions of this § 71.53 adopted August 13, 1971, effect Pa.B. 1649; amended April 28, 1972, effective May 15, 1972, September 28, 1973, effective October 15, 1973, 3 Pa.B. 2176; re effective September 16, 1974, 4 Pa.B. 1805; amended June 9, 1989, 19 Pa.B. 2429. Immediately preceding text appears at serial page (12

Cross References

This section cited in 25 Pa. Code § 71.14 (relating to private r plans); 25 Pa. Code § 71.54 (relating to Department administratio ment requirements for revisions); and 25 Pa. Code § 71.55 (relati requirement to revise the official plan for new land development).

§71.54. Department administration of new land de requirements for revisions.

(a) No proposed plan revision for new land d approved by the Department unless it contains th supporting documentation required by the act, the and regulations promulgated thereunder.

(b) No proposed plan revision for new land d considered for approval unless accompanied by the i in § 71.53(d) (relating to municipal administration of ment planning requirements for revisions).

(c) When a municipality does not have an approv fails to revise or implement an official plan when requi

(1) Section 71.32(f) (relating to Department resp and act upon official plans) applies.

(2) The exceptions to the requirements to revise new land development in § 71.55 (relating to requirement to revise the official plan for new land apply.

ys after receipt of a complete proposed plan revision the Department will approve or disapprove the n.

partment's failure to act upon a proposed plan days of its submission, the proposed plan revision have been approved, unless the Department informs r to the end of the 120-day period that an extension to complete review. The additional time will not

or disapproving an official plan or revision, the ider the requirements of § 71.32(d).

ficial plan revision for new land development is Department, written notice will be given to each in the plan revision, with a statement of reasons for

Source

§ 71.54 adopted August 13, 1971, effective August 14, 1971, 1 pril 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended ctive October 15, 1973, 3 Pa.B. 2176; reserved August 30, 1974, 974, 4 Pa.B. 1805; amended June 9, 1989, effective June 10, 1989, ly preceding text appears at serial page (12832).

to the requirement to revise the official plan for new pment.

y does not have to revise its official plan when the es that the proposal is for the use of individual onlot ving detached single family dwelling units in a ts or less and the following apply:

al, in addition to the existing or proposed subdivision rt, will not exceed ten lots.

ision has been determined to have soils and site are generally suitable for onlot sewage disposal 71.62 (relating to individual and community onlot

poses of determining whether a proposal qualifies for er this section, the enumeration of lots shall include fter May 15, 1972.

sal is consistent with the requirements of § 71.21(a) g to content of official plans).

on supporting a request for exception under this bmitted to the Department using the Department's nning module and shall include:

(1) A statement by the governing body of the mu edging that they and an existing municipal planning or both, have reviewed the proposal and found it to the municipality's official plan.

(2) Evidence of review by the municipality's se officer.

(c) Municipalities shall comply with § 71.53(a) an municipal administration of new land development plan for revisions) when reviewing the proposals.

(d) Proposals qualifying under this section shall b quate if the Department does not respond within Department's receipt of the properly completed and nents of the Department's sewage facilities planning r proper written documentation and the sewage facility meets the requirements of this chapter.

Source

The provisions of this § 71.55 adopted August 13, 1971, effecti Pa.B. 1649; amended April 28, 1972, effective May 15, 1972, 2 September 28, 1973, effective October 15, 1973, 3 Pa.B. 2176; rese effective September 16, 1974, 4 Pa.B. 1805; amended June 9, 1989, e 19 Pa.B. 2429. Immediately preceding text appears at serial page (128

Cross References

This section cited in 25 Pa. Code § 71.51 (relating to general); an (relating to Department administration of new land development pla revisions).

§71.56. [Reserved].

Source

The provisions of this § 71.56 adopted August 13, 1971, effecti Pa.B. 1649; amended April 28, 1972, effective May 15, 1972, 2 September 28, 1973, effective October 15, 1973, 3 Pa.B. 2176; rese effective September 16, 1974, 4 Pa.B. 1805. Immediately preceding page (12833).

§71.57. [Reserved].

Source

The provisions of this § 71.23 adopted August 13, 1971, effecti Pa.B. 1649; amended April 28, 1972, effective May 15, 1972, 2 September 28, 1973, effective October 15, 1973, 3 Pa.B. 2176; rese effective September 16, 1974, 4 Pa.B. 1805. Immediately preceding page (12835).

OFFICIAL PLAN REQUIREMENTS FOR LTERNATIVE EVALUATIONS

ommunity onlot sewage systems.

ment facilities.
community sewerage systems.

Cross References

25 Pa. Code § 71.3 (relating to purposes); 25 Pa. Code § 71.11 ment); 25 Pa. Code § 71.13 (relating to Department responsibility visions); and 25 Pa. Code § 71.21 (relating to content of official

and revisions to official plans shall evaluate alterna- ovide for adequate sewage facilities as required in (a)(3) (relating to contents of official plans; and —new land development revisions). The Department on of additional technically available alternatives.

ive for the provision of adequate sewage facilities or compliance with the technical and administrative s of the act and regulations promulgated thereunder.

lan or revision shall select one alternative which is nentation as described in § 71.21(a)(4)—(6) which rm sanitary collection, treatment and disposal of

fficial plans and revisions shall be based on:

al feasibility of the selected alternative in relation to ons and standards.

ity for implementation of the selected alternative in le administrative and institutional requirements.

Source

§ 71.61 adopted August 13, 1971, effective August 14, 1971, 1 pril 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended ctive October 15, 1973, 3 Pa.B. 2176; amended August 30, 1974, 974, 4 Pa.B. 1805; reserved January 9, 1987, effective January 10, nended June 9, 1989, effective June 10, 1989, 19 Pa.B. 2429. t appears at serial page (125969).

§71.62. Individual and community onlot sewage system

(a) Official plans and official plan revisions proposi community onlot sewage systems shall evaluate general establish their use as a feasible alternative, as specified

(b) When an official plan or revision proposes t sewage effluent by means of a subsurface absorption a shall be provided:

(1) Anticipated raw waste characteristics of th industrial wastes as defined in the Clean Streams La be present in the raw sewage, § 72.25(f)(2) (relati permits) applies.

(2) Documentation that the soils and geology of are generally suitable for the installation of the system

(i) Soils mapping as per the United States Service mapping or the equivalent.

(ii) Contour lines as per the United States Topographic mapping or site determined contour lin

(iii) Soil profiles as described in Chapter 73 (rel for sewage disposal facilities) shall be performed adequate area with suitable soils is available in proposed system. These profiles shall be appr distributed among the various soils mapped in t purpose of this section, each change of slope or characteristic specified as part of the soil classifica United States Soil Conservation Service will be equi in soil type.

(iv) A sufficient number of percolation tests to general percolation rate for each soil type in the a are to be installed is within acceptable limits as de 73. For the purpose of this section, each change of erosion characteristic specified as part of the soil cl of the United States Soil Conservation Service will change in soil type.

(c) This chapter does not preclude the use of indivi nity onlot sewage systems using subsurface soil absorp less than 1 acre in size or the use of large volume onl Because of the potential for the creation of a public pollution of the waters of this Commonwealth from improper system siting or inadequate maintenance community onlot systems, particular attention shall b plans and revisions to the technical and institutional the systems.

permeability testing is required when an official plan
s the use of a large volume onlot sewage system or a
ystem with a sewage flow of 10,000 gallons per day
e required for other onlot system proposals where the
rea is greater than 5,000 square feet or where soil
reveal slowly permeable conditions below the depth
lation test was performed. Sufficient testing shall be

the permeability of an identified restrictive soil,
ulic layer.
the vertical rate and the horizontal rate of flow in
rictive layers in inches per hour.
e the application rate required as derived from the
tained in subparagraphs (i) and (ii). When this
is more stringent than that derived from percolation
ined in Chapter 73, the more stringent rate shall be
ystem.
e the impact of the system on groundwater mound-

ry hydrogeologic evaluation is required when the use
bsorption areas is proposed and one of the following

lume onlot sewage system will be used.
sion of more than 50 equivalent dwelling units with a
than one lot including equivalent dwelling units per

artment has documented that the quality of water
1/4 mile of the proposed site exceed five parts per
rate-nitrogen.
artment has determined that known geological condi-
roposed site may contribute to the potential for
ution from the systems.
ry hydrogeologic evaluation shall include as a mini-
narrative report form:
raphic location of the proposed systems in relation to
urface water flow, or both.
wastewater dispersion plume.
tion and location of existing and potential groundwa-
timated area of impacted groundwater.
drogeologic studies may be required by the Depart-
liminary hydrogeologic evaluation identifies a poten-
between the proposal and existing or potential future
er in the area. Detailed hydrogeologic studies shall

identify constituents of the sewage which may pollut
shall evaluate methods for preventing the pollution o
Commonwealth. A detailed hydrogeologic study
using the Department's sewage facilities planning mo

(d) Municipalities shall evaluate and implement op
ing an institutional framework to assure the pro
maintenance of these systems under the act and this pa

Source

The provisions of this § 71.62 adopted August 13, 1971, effect
Pa.B. 1649; amended April 28, 1972, effective May 15, 1972,
September 28, 1973, effective October 15, 1973, 3 Pa.B. 2176; am
effective September 16, 1974, 4 Pa.B. 1805; amended February 28, 1
1975, 5 Pa.B. 374; reserved January 9, 1987, effective January 1
amended June 9, 1989, effective June 10, 1989, 19 Pa.B. 2429. Im
appears at serial page (125969).

Cross References

This section cited in 25 Pa. Code § 71.55 (relating to exception
revise the official plan for new land development).

§71.63. Retaining tanks.

(a) Retaining tanks are designed and constructed t
disposal of the sewage at another site. This requi
retaining tanks through specific restrictions on their use

(b) General requirements for retaining tank use are

(1) The official plan or revision shall meet th
Subchapters B and C (relating to official plan requ
land development plan revisions).

(2) Proposed disposal sites, the method of dispos
tank cleaner for retaining tank waste shall be
Department in a manner consistent with the Solid
Act (35 P. S. §§ 6018.101—6018.1003) prior to appr
plan or revision allowing the use of retaining tanks.

(3) A municipality, sewer authority or sewage r
may delegate or contract for the collection and dispo
tanks' contents except that the ultimate responsibi
collection and disposal of the contents shall remain
ity, authority or agency.

(4) Whenever the local agency issues permits for
municipality or local agency may impose other c
necessary for operation and maintenance of the
nuisance or a public health hazard.

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ts require regular service and maintenance to prevent
d overflow and shall be used in lieu of other methods
nly when the following additional conditions are met:
ble official plan or revision thereto indicates the use
or that lot and provides for replacement by adequate
in accordance with a schedule approved by the

able official plan or revision includes municipal
es of the replacement project's implementation, such
, bonding or other security of sufficient present value
tion or other assurances either singularly or in
he Department deems necessary.
pality, sewer authority or other Department approved
ction or responsibility over the site has by suitable
tion or restriction assumed full responsibility for
g and new holding tanks. The ordinances shall, as a
:
ion of the administrative entity to receive, review and
receipts from permitted holding tanks.
l inspection of holding tanks within the municipality
and retention of a written inspection report.
es and penalties for correction of malfunctions or
zards from holding tanks.
ns in subsections (c)(1)—(3) do not apply to holding
l agency, municipality or the Department determines
sary to abate a nuisance or public health hazard.
ns in subsections (c)(1) and (2) do not apply to
n the use is for an institutional, recreational or
nment with a sewage flow of 400 gallons per day or

emical toilet is designed to receive sewage where there
ressure and no piped wastewater. Privies shall be used
ethods of sewage disposal only when the following

able official plan or the revision thereto indicates the
that lot and documents that soil and site suitability
under §§ 73.11—73.16 has been conducted, and the
uirements for the ultimate sewage disposal by one of
bed under §§ 73.51—73.55 (relating to construction of
to assure that adequate sewage facilities will be
under pressure or piped water becomes available to
ure.

(2) The municipality, sewer authority or other l
entity with jurisdiction or responsibility over the
ordinance, regulation or restriction assumed re
removal of a privy and the installation of an ap
disposal system when water under pressure or piped
the lot.

(g) The restrictions in subsection (f) do not apply:

(1) To a privy or chemical toilet when prop
isolated lot which is 1 acre or larger not served
served in the future by water under pressure or pip

(2) To temporary use of portable retention
chemical toilets when their use is proposed at const
site of public gathering and entertainments.

Source

The provisions of this § 71.63 adopted August 30, 1974, effec
Pa.B. 1805; amended February 28, 1975, effective March 17, 19
January 9, 1987, effective January 10, 1987, 17 Pa.B. 172; amen
June 10, 1989, 19 Pa.B. 2429. Immediately preceding text appea

§71.64. Small flow treatment facilities.

(a) Small flow treatment facilities require ade
maintenance to prevent the creation of environment
health hazards associated with improperly treated s
the control of small flow treatment facilities throug
on their use.

(b) Small flow treatment facilities are restricted to
or repair system which the Department determines is
existing nuisance or public health hazard or as
residential dwellings.

(c) When an official plan or update revision prop
flow treatment facilities, the official plan or revision
contain the following, in addition to the requireme
and C (relating to official plan requirements; and n
plan revisions):

(1) Documentation that soils are not suitable
of individual or community onlot sewage dis
§§ 73.11—73.16.

(2) Documentation that the proposed system
waters classified as High Quality in §§ 93.6 and 93
water quality criteria; and designated water use

classified as Exceptional Value in § 93.9 unless the to be used as a replacement or repair system which te an existing nuisance or public health hazard and uirements for the discharge are met.

ry hydrogeologic evaluation when the small flow will use land disposal or a dry stream channel lisposal. This evaluation shall include:

recent 71/2' United States Geologic Survey Topo- the discharge accurately plotted.

rge rate and quality, including seasonal variations.

fication on the topographic map of existing ground- 200 feet in width on each side of the channel n the discharge from the system until perennial are reached.

on, using the information developed in subsection ms that existing or proposed drinking water uses will at effluent will not create a public health hazard or a

ion that the proposed use of these small flow does not conflict with comprehensive sewage plan-

on that establishes specific responsibilities for operance of the proposed system which may include the ubchapter E (relating to sewage management pro- all flow treatment facilities are proposed as an e an established needs area, the requirements of be met.

on of the density of development and the number and milar systems in the watershed. As a result of that partment may impose additional conditions or limit operation of small flow treatment facilities.

on of the alternatives available to provide sewage uments that the use of small flow treatment facilities nentally acceptable alternative.

eatment facilities and their appurtenances shall meet stallation, operation and other standards established nent facilities by the Department under sections 202 Streams Law (35 P. S. §§ 691.202 and 691.207) and Streams Law permit and if there is a discharge to ional pollutant discharge elimination system permit, and operation.

(e) Plans and specifications shall be prepared by sional engineer in compliance with Chapter 91 (provisions).

(f) The Department may require independent over installation.

Source

The provisions of this § 71.64 adopted June 9, 1989, effective 2429.

Cross References

This section cited in 25 Pa. Code § 71.65 (relating to individual systems).

§71.65. Individual and community sewerage systems.

(a) When an official plan or revision proposes the privately owned individual or community sewerage plan or revision shall contain the following, in addi ments of Subchapters B and C (relating to the official and new land development plan revisions):

(1) An evaluation of alternatives available to pr ties and proof that the proposed sewage facilities are long-term, environmentally acceptable alternative.

(2) An evaluation that establishes specific respon tion and maintenance of the proposed system u (relating to sewage management programs).

(b) When the proposed discharge from the indivi sewerage system is to a dry stream channel or lan information as required in § 71.64(c)(3) and (4) (rel treatment facilities) shall be included with the offici

(c) Individual and community sewerage systems nances shall meet applicable design and other standard Department under sections 202 and 207 of the Clea P. S. §§ 691.202 and 691.207) and shall obtain a permit and if there is a discharge to surface water, a discharge elimination system permit, prior to construc

Source

The provisions of this § 71.65 adopted June 9, 1989, effective 2429.

Subchapter E. SEWAGE MANAGEMENT PR

Sec.

ıg.
d operation and maintenance.
pplicable actions that will resolve or abate the
ems.
for new community sewage systems.
for a sewage management program to assure the
and maintenance of existing and proposed sewage

h alternative listed in response to paragraph (4),
mited to:
between the proposed alternative and the objectives

ble plans developed and approved under sections 4
lean Streams Law (35 P. S. §§ 691.4 and 691.5) or
he Clean Water Act (33 U.S.C.A. § 1288).
al wasteload management plans developed under

eveloped under Title II of the Clean Water Act (33
281—1299) or Titles II and VI of the Water Quality
U.S.C.A. §§ 1251—1376).
hensive plans developed under the Pennsylvania
Planning Code.
radation requirements as contained in Chapters 93,
relating to water quality standards; waste water
irements; and erosion control) and the Clean Water

ater plans developed under the Water Resources
42 U.S.C.A. §§ 1962—1962d-18).
of the *Pennsylvania Code*, Chapter 7, Subchapter W
ne agricultural land policy).
dopted by the county and approved by the Depart-
Storm Water Management Act (32 P. S. §§ 680.1—

protection under Chapter 105 (relating to dam
erway management).
on of rare, endangered or threatened plant and
as identified by Pennsylvania Natural Diversity

507 of Title 37 of *Pennsylvania Consolidated*
ing to cooperation by public officials with the

ution of inconsistencies identified in this section.

(iii) Applicable water quality standards, effluen
other technical requirements contained in Subchapte
official plan requirements for alternative evaluations

(iv) Cost estimates for construction, financing, c
tration, operation and maintenance.

(v) Subject to the limitations of subsections (b)
methods available to finance all aspects of each
alternatives, establishment of the financial alternative
contingency financial plan to be used if the prefe
financing is not able to be implemented.

(vi) Ability to implement, including:

(A) Activities necessary to abate critical publi
pending completion of sewage facilities or sew
programs.

(B) Phased development of the facilities or sew
program.

(C) Time schedules for implementing each phase

(D) Administrative organization and legal au
for plan implementation.

(6) Select one alternative to solve the need for se
each area studied and support this choice with doc
shows that it is the best alternative technically, envi
administratively.

(7) Include a summary of the plan which identifies:

(i) Major problems evaluated in the plan.

(ii) Alternatives chosen to solve these problems.

(iii) Municipal commitments necessary to impleme

(iv) A schedule for implementation.

(8) When the information required as part of an
revision has been developed separately, incorporate th
reference.

(b) Feasibility evaluations required by subsection (a)(5
be limited to areas identified in the plan as needing
facilities within a 5-year period from the date of plan
which are scheduled for completion of sewage facilities
less.

(c) Dates for the future initiation of feasibility evalua
subsection (a)(5)(iv) and (v) shall be included in the
schedule for areas proposing completion of sewage facili
excess of 5 years.

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nanagement programs for sewage facilities permitted
agencies.
ent responsibilities to require sewage management programs.
equest to require a sewage management program.
d].

Cross References

cited in 25 Pa. Code § 71.3 (relating to purposes); 25 Pa. Code § 71.11
requirement); 25 Pa. Code § 71.21 (relating to content of official plans);
52 (relating to content requirements—new land development revisions); 25
(relating to small flow treatment facilities); and 25 Pa. Code § 71.65
nal and community sewage systems).

ral requirements.

s are required to assure the proper operation and mainte-
ge facilities within their borders. Proper operation and
sewage facilities is essential to the provision of adequate
ent and disposal over the functional life of a sewage
m. Municipalities shall, therefore, address long-term opera-
tenance in official plans and revisions to official plans.
and C (relating to official plan requirements; and new land
lan revisions) and this subchapter provide the planning
o identify, evaluate and implement the operation and
eeds of existing and proposed sewage facilities within a
he establishment of a sewage management program as part
plan or revision to an official plan provides a method of
r operation and maintenance of sewage facilities. The
l implementation of operation and maintenance needs
vage management program shall be consistent with the
his subchapter.

Source

of this § 71.71 adopted August 13, 1971, effective August 14, 1971, 1
ded April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; amended
3, effective October 15, 1973, 3 Pa.B. 2176; amended August 30, 1974,
16, 1974, 4 Pa.B. 1805; amended February 28, 1975, effective March 17,
amended September 24, 1976, effective October 11, 1976, 6 Pa.B. 2392;
1987, effective January 10, 1987, 17 Pa.B. 172; amended June 9, 1989,
1989, 19 Pa.B. 2429. Immediately preceding text appears at serial page

**ge management programs for Department permitted sewage
ies.**

ficial plan or revision to an official plan for existing needs
and development proposes the construction of Department
nunicipal sewage facilities, the official plan or revision shall

evaluate the options available to assure the long-term
and maintenance of the proposed sewage facilities. The n
to adoption of that official plan or revision, shall requi
the following:

(1) A bond or other security sufficient to co
improvements which may be required, either pri
approval or thereafter under section 509 of the Pennsy
ities Planning Code (53 P. S. § 10509).

(2) A bond or escrow account sufficient to cover t
operation and maintenance of the sewage facilities
nances.

(3) Establishment of a properly chartered associati
private legal entity to assure long-term administratio
and maintenance program.

(4) Municipal ownership of the sewage facilities

(5) Establishment of, or inclusion of, the sewage
management agency through existing municipal codes,
limited to, municipal authorities, sanitary boards and

(6) Establishment of, or inclusion of, the sewage
management agency through the adoption of local
municipal codes.

(7) One or a combination of the requirements in p
or other actions permitted by and consistent with the
Streams Law found necessary by the Department
installation, maintenance and operation of the propo
ties.

Source

The provisions of this § 71.72 adopted August 13, 1971, effectiv
Pa.B. 1649; amended April 28, 1972, effective May 15, 1972, 2
February 28, 1975, effective March 17, 1975, 5 Pa.B. 374; amended M
May 31, 1975, 5 Pa.B. 1402; reserved January 9, 1987, effective Janu
172; amended June 9, 1989, effective June 10, 1989, 19 Pa.B. 2429.
text appears at serial page (125970).

**§71.73. Sewage management programs for sewage facil
local agencies.**

(a) When sewage facilities are permitted by loc
municipality is responsible for taking actions necessary
ued compliance of these sewage facilities with the act, t
Law and regulations promulgated thereunder.

(b) When an official plan or official plan revisio
Department determines, that existing sewage facilities
local agency need periodic inspection, operation or

proper operation, or are not properly functioning
ate operation and maintenance, the municipality shall
lan to establish a sewage management program for
ies. The update revision shall include the following as

on of the specific legal authority to be used by
s and their designated employes to enter lands and
of onlot sewage facilities. The policy concerning a
ctions and methods of notification of landowners of
e included.
consistent with section 8(b)(9) of the act (35 P. S.
operation, maintenance, repair replacement of sewage
clude:
of septage or other solids from treatment tanks once
whenever an inspection program reveals the treatment
with solids in excess of 1/3 the liquid depth of the
m in excess of 1/3 the liquid depth of the tank.
ance of surface contouring and other measures, consis-
oter 73 (relating to standards for sewage disposal
ert storm water away from the treatment facilities and
s and protection of the absorption areas from physical

ments for the use of water conservation devices to
c loading to the sewage system.
ments for the operation and maintenance of electrical,
chemical components of the sewage facilities; collec-
e piping, pressure lines and manholes; alarm and flow
s; pumps; disinfection equipment and related safety

nents for septage pumpers/haulers which are consistent
Waste Management Act (35 P. S. §§ 6018.101—

ments for holding tank maintenance.
on of the specific requirements of the sewage manage-
d administrative or legal functions needed to carry out

ent of a fee schedule for the cost of municipal services
menting the provision of the sewage management

ion of the authority to be used to enforce the
he sewage management program or restrain violations

(6) Identification of penalty provisions for violations
requirements.

(7) Draft ordinances, regulations or policies whic
sewage management program.

(8) Other requirements consistent with the act and th
Law.

Source

The provisions of this § 71.73 adopted August 2, 1971, effective Aug
1649; amended April 28, 1972, effective May 15, 1972, 2 Pa.B. 753; am
1975, effective March 17, 1975, 5 Pa.B. 374; reserved January 9, 1987, e
1987, 17 Pa.B. 172; amended June 9, 1989, effective June 10, 198
Immediately preceding text appears at serial page (125970).

§71.74. Department responsibilities to require sewag programs.

(a) The Department will require municipalities to revi
plan to evaluate the feasibility of establishing a sewag
program or the inclusion of sewage facilities in an e
management program whenever the Department determin
the following exists:

(1) Existing sewage facilities within the municipality
properly operated and maintained under this part.

(2) A revision for new land development is submitted
adequately address the administrative, technical or l
needed to carry out operation and maintenance of
facilities.

(3) The official plan or revision shows that existing
facilities need periodic inspection, operation or maintena
long-term proper operation.

(b) The Department may provide technical and administ
to local municipalities to assist them in the developme
management programs for existing needs areas and new lan
proposals.

Source

The provisions of this § 71.74 adopted August 2, 1971, effective August
1649; amended August 30, 1974, effective September 16, 1974, 4 Pa.
January 9, 1987, effective January 10, 1987, 17 Pa.B. 172; amended June
June 10, 1989, 19 Pa.B. 2429. Immediately preceding text appears at seri

uest to require a sewage management program.

a resident or property owner in a municipality may
ient to order that municipality to revise its official
§ 71.14 (relating to private request to revise official
esident or property owner can show one of the

ng sewage facilities within the municipality are not
erated and maintained under this part.
ision for new land development does not adequately
istrative, technical or legal functions needed to carry
maintenance of the proposed facilities.

Source

§ 71.75 adopted August 2, 1971, effective August 3, 1971, 1 Pa.B.
30, 1974, effective September 16, 1974, 4 Pa.B. 1805; reserved
e January 10, 1987, 17 Pa.B. 172; amended June 9, 1989, effective
2429. Immediately preceding text appears at serial page (125970).

Source

§ 71.76 adopted August 2, 1971, effective August 3, 1971, 1 Pa.B.
30, 1974, effective September 16, 1974, 4 Pa.B. 1805; reserved
ive January 10, 1987, 17 Pa.B. 172. Immediately preceding text
8913).

[Next page is 72-1.]

CHAPTER 72. ADMINISTRATION OF SEWAGE FAC PERMITTING PROGRAM

Subchap.

Authority

The provisions of this Chapter 72 issued under section 9 of the act of Ja
(P. L. 1535, No. 537) (35 P. S. § 750.9); sections 5 and 402 of the act of
(P. L. 1987, No. 394) (35 P. S. §§ 691.5 and 691.402); and section 1920-A
April 9, 1929 (P. L. 177, No. 175) (71 P. S. § 510-20), unless otherwise noted

Source

The provisions of this Chapter 72 adopted January 9, 1987, effective Janua
Pa.B. 172, unless otherwise noted.

Subchapter A. GENERAL

Sec.

Cross References

This subchapter cited in 25 Pa. Code § 72.2 (relating to scope); and 25 P
(relating to purposes).

§72.1. Definitions.

The following words and terms, when used in this chapt
following meanings, unless the context clearly indicates otherw

Act—The Pennsylvania Sewage Facilities Act (35 P. S.
750.20).

Alternate sewage system—A system employing the use
strated technology in a manner not specifically recognized

Certification Board—The administrative board within the
created by section 11 of the act (35 P. S. § 750.11).

Days—Calendar days as specified in 1 Pa.C.S. § 1908
computation of time). If a period time is referred to in this
period shall be computed to exclude the first and include th
the period. If the last day of the period falls on a Saturday
or a day made a legal holiday by the statutes of the Comm
of the United States, the day shall be omitted from the c

request to require a sewage management program.

is a resident or property owner in a municipality may
artment to order that municipality to revise its official
er § 71.14 (relating to private request to revise official
resident or property owner can show one of the

isting sewage facilities within the municipality are not
operated and maintained under this part.

revision for new land development does not adequately
ministrative, technical or legal functions needed to carry
nd maintenance of the proposed facilities.

Source

his § 71.75 adopted August 2, 1971, effective August 3, 1971, 1 Pa.B.
ust 30, 1974, effective September 16, 1974, 4 Pa.B. 1805; reserved
ctive January 10, 1987, 17 Pa.B. 172; amended June 9, 1989, effective
a.B. 2429. Immediately preceding text appears at serial page (125970).

ed].

Source

his § 71.76 adopted August 2, 1971, effective August 3, 1971, 1 Pa.B.
ust 30, 1974, effective September 16, 1974, 4 Pa.B. 1805; reserved
fective January 10, 1987, 17 Pa.B. 172. Immediately preceding text
(78913).

[Next page is 72-1.]

Appendix B

Correspondence

KOHLI AND ASSOCIATES, INC.

42 LLOYD AVENUE MALVERN, PA. 19355 (215)644-5591

SURENDER S. KOHLI, P.E.
PRESIDENT

CONSULTING ENGINEERS
PLANNERS
LANDSCAPE ARCHITECTS

January 26, 1990

Department of Environmental Resources
1875 New Hope Street
Norristown, PA 19401

Attn: Glen Stinson

Re: East Whiteland Township
Sewage Facilities Plan

Dear Mr. Stinson:

On behalf of East Whiteland Township, we are enclosing herein, an proposed outline for preparing the Act 537 Sewage Facilities Plan for your review and approval.

Based on the work included within the outline, we estimate the cost of the 537 Plan to be $32,750.00.

I would appreciate your earliest response so we can proceed with the project.

Thank you in advance for your cooperation.

Very truly yours,

Surender S. Kohli, P.E.
Township Engineer
East Whiteland Township

SSK:ca
Enclosure

cc: J. Donald Reimenschneider, Manager

EAST WHITELAND TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN

Outline of the Proposed Plan

I. Introduction

- A. Purpose of the Official Act 537 Plan
- B. Content of the Official Act 537 Plan (Summary)
  - 1. Final Plan Recommendations
    - a. Alternatives of Choice
    - b. Service Areas
    - c. Institutional Arrangements
  - 2. Implementation
    - a. Costs
    - b. Funding
    - c. Schedule

II. Background Information

- A. Official Act 537 Plan Context
  - 1. Requirements of the Pennsylvania Sewage Facilities Act.
  - 2. Past Official Plans (including the identification of wastewater planning that has been previously undertaken or is anticipated).
    - a. Master Sewage Plan for Chester County, PA.
    - b. Official Plan Revision by East Whiteland Township.
  - 3. The Institutional Context of the Valley Forge Sewer Authority.

Re: Draft
East Whiteland Township
Act 537 Sewage Facilities Plan

B. Profile of East Whiteland Township

1. General Setting (including all municipal boundaries, sewer authority boundaries, and drainage basins)

2. Population (both existing and projections)

3. Planning and Zoning Overview (involving a comparison and analysis of proposed land used and growth areas with existing sewage facilities and facility planning)

a. Comprehensive Plan of 1987

b. Zoning Ordinance of 1965, as amended

4. Land Development Overview (involving regulations that establish lot sizes predicated on sewage disposal, all approved subdivision/land developments and approximate number of undeveloped lots/units approved within each identified Subdivision/land developments)

III. Existing Sewage Services and Conditions

A. Existing Sewage System

1. Areas presently served (including all components of the system)

2. Permitted capacity (as specified by NPDES or Clean Steams Law Permit)

3. Reserve Capacity (and any agreed allocation of or policy on use of this capacity)

4. Information on the Operation and Maintenance of the Sewage System Components

B. Valley Forge Wastewater Treatment Facility

C. Sewage Disposal Problem Areas

D. Soils Analysis

E. Existing Centralized Water System

Re: Draft
East Whiteland Township
Act 537 Sewage Facilities Plan

IV. Proposed Sewage Services and Conditions

A. Expected Wastewater Disposal Needs (based on population projected and approved subdivision/land development)

B. Areas Planned to be Served

C. Phases of the Proposed Sewage System

V. Evaluation

A. Identify and Analyze Alternatives

1. Collection, conveyance and treatment (including identified service areas and regional wastewater treatment concepts)

B. Evaluation of Each Alternative, based on:

1. Cost of Construction

2. Cost of Financing

3. Cost of On-going Administration

4. Cost of Operation and Maintenance

5. User fees for each Service Area

C. Identify and describe Institutional Alternatives necessary to implement the recommended official plan

VI. Recommendations

A. Designate the Institutional and Technical alternatives of choice that best meets the wastewater treatment needs, based on:

1. Sewage Needs

2. Technical and Administrative Needs

3. Management and Administrative system available

4. Financing Methods Available

5. 5 Year Plan and Growth Areas

6. 10 Year Plan and Growth Areas

Re: Draft
East Whiteland Township
Act 537 Sewage Facilities Plan

VII. Implementation Schedule

VIII. Appendices

Pennsylvania Sewage Facilities Act

Correspondence

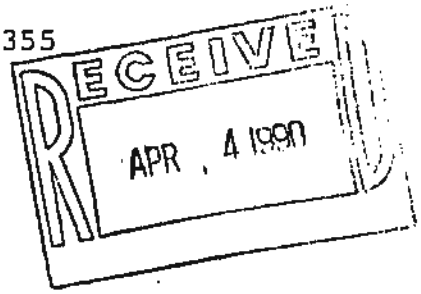
Applications for Planning Grants
Planning Agency Comments and Township Response
Public Comments and Township Response

Resolution for Township Adoption

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
1875 New Hope Street
Norristown, Pa. 19401
215 270-1975

April 2, 1990

Surender S. Kohli, P.E.
Kohli and Associates, Inc.
42 Lloyd Ave.
Malvern, Pa. 19355



Re: 537 Plan Update
East Whiteland
Chester County

Dear Mr. Kohli:

The Task/Activity Report, dated January 26, 1990, has been reviewed. The following additional information is needed.

The revisions to Chapter 71, Administration of Sewage Facilities Planning Program, which went into effect June 10, 1989, impact on minimum plan content. Changes include:

1. Wetlands must be identified. This is a conceptual planning task not to be confused with wetlands delineation, a more detailed permitting task.

2. Information about the source of potable water supplies is required. This will identify potential conflicts between sewage facilities planning and water allocation planning.

3. Operation and maintenance of all public and private sewage facilities must be addressed via an evaluation of alternatives. This prior requirement has been expanded so as to provide for the long-term operation and maintenance through sewage management agencies.

4. The consistency section of the regulations was expanded to require that each alternative be evaluated for consistency with the objectives and policies of additional programs such as wetlands protection.

Surender S. Kohli
April 2, 1990

5. Feasibility evaluations in the alternatives analysis phase of plan preparation are required for facilities scheduled within 5 years or less. Dates for future initiation of feasibility evaluations need to be to be included in the implementation schedule for areas proposing completion of sewage facilities for periods in excess of 5 years.

6. Listing of both the primary and contingency funding sources with documentation that the project sponsor meets eligibility requirements, is needed.

Other areas of the Task/Activity Report which lack certain specificity include:

1. the scale of figures will need to be large enough to allow for easy use.

2. Facility alternatives to evaluate must include land application of effluent generated from the various treatment alternatives, both community and individual type facilities.

3. Alternatives to be considered also need to include the use of non-structural land use planning alternatives.

4. The schedule of implementation will need to be specific in regards to milestone dates for design/construction and funding commitments for each area of need.

5. The delineation of community and individual water supplies is essential relative to concentrated areas of on-lot sewage systems. Given the close proximity of wells and on-lot systems, nitrate nitrogen well water analysis from a representative sampling is required.

Surender S. Kohli
April 2, 1990

Coordination of planning for the western portion of the Township affected by the Churchill subdivision with West Whiteland Township is essential.

If you have any questions please do not hesitate to call.

Very truly yours,

Lee Gemmill

Lee Gemmill
Sanitarian Sewage Specialist

cc: East Whiteland Township
Chester County Planning Commission
Chester County Health Department
Mr. Rehm
re, 30 days

KOHLI AND ASSOCIATES, INC.

42 LLOYD AVENUE MALVERN, PA. 19355 (215)644-5591

SURENDER S. KOHLI, P.E.
PRESIDENT

CONSULTING ENGINEERS
PLANNERS
LANDSCAPE ARCHITECTS

April 26, 1990

Mr. Lee Gemmill
Sanitarian Sewage Specialist
PA Department of Environmental Resources
1875 New Hope Street
Norristown, PA 19401

Re: 537 Plan Update
East Whiteland Township
Chester County
Job #88050

Dear Mr. Gemmill:

In response to your letter of April 2, 1990, we have revised our task/activity report for the East Whiteland Township Sewage Facilities Plan. Enclosed for your information is a copy of the revised outline which incorporates the six changes outlined in your letter.

We have noted your concern about the need for specific information in the plan update. Please be assured that the 5 areas noted in your letter will be addressed in our report. Coordination of planning for the area of the Township affected by the proposed Churchill development will be an essential part of our report.

We are proceeding with the project based on the revised outline. Please let us know if you have any other comments as soon as possible. Thank you for your assistance.

Very truly yours,

David R. Fibrello, P.E.
Project Engineer

DRF:ca

EAST WHITELAND TOWNSHIP
ACT 537 SEWAGE FACILITIES PLAN

Outline of the Proposed Plan

I. Introduction

A. Purpose of the Official Act 537 Plan

B. Content of the Official Act 537 Plan (Summary)

1. Final Plan Recommendations

a. Alternatives of Choice

b. Service Areas

c. Institutional Arrangements

2. Implementation

a. Costs

b. Funding

c. Schedule

II. Background Information

A. Official Act 537 Plan Context

1. Requirements of the Pennsylvania Sewage Facilities Act.

2. Past Official Plans (including the identification of wastewater planning that has been previously undertaken or is anticipated).

a. Master Sewage Plan for Chester County, PA.

b. Official Plan Revision by East Whiteland Township.

3. The Institutional Context of the Valley Forge Sewer Authority.

B. Profile of East Whiteland Township

1. General Setting (including all municipal boundaries, sewer authority boundaries, and drainage basins)

2. Population (both existing and projections)

3. Planning and Zoning Overview (involving a comparison and analysis of proposed land used and growth areas with existing sewage facilities and facility planning)

   a. Comprehensive Plan of 1987

   b. Zoning Ordinance of 1965, as amended

4. Land Development Overview (involving regulations that establish lot sizes predicated on sewage disposal, all approved subdivision/land developments and approximate number of undeveloped lots/units approved within each identified Subdivision/land developments)

III. Existing Sewage Services and Conditions

A. Existing Sewage System

1. Areas presently served (including all components of the system)

2. Permitted capacity (as specified by NPDES or Clean Steams Law Permit)

3. Reserve Capacity (and any agreed allocation of or policy on use of this capacity)

4. Information on the Operation and Maintenance of the Sewage System Components

B. Valley Forge Wastewater Treatment Facility

C. Sewage Disposal Problem Areas

D. Soils Analysis and Wetland Identification

E. Existing Water System

1. Public Water Supply
2. Private Systems

IV. Proposed Sewage Services and Conditions

A. Expected Wastewater Disposal Needs (based on population projected and approved subdivision/land development)

B. Areas Planned to be Served

C. Phases of the Proposed Sewage System

V. Evaluation

A. Identify and Analyze Alternatives

1. Collection, conveyance and treatment (including identified service areas and regional wastewater treatment concepts)

B. Evaluation of Each Alternative, based on:

1. Cost of Construction

2. Cost of Financing

3. Cost ot On-going Administration

4. Cost of Operation and Maintenance

5. User fees for each Service Area

6. Consistency with objectives and policies of other programs

C. Identify and describe Institutional Alternatives necessary to implement the recommended official plan

1. Short Term, less than 5 years

2. Long Term, greater than 5 years

VI. Recommendations

A. Designate the Institutional and Technical alternatives of choice that best meets the wastewater treatment needs, based on:

1. Sewage Needs

2. Technical and Administrative Needs

3. Management and Administrative system available

4. Financing Methods Available (both Primary and Contingency Services)

5. 5 Year Plan and Growth Areas

6. 10 Year Plan and Growth Areas

VII. Implementation Schedule

VIII. Appendices

Pennsylvania Sewage Facilities Act

Correspondence

Applications for Planning Grants
Planning Agency Comments and Township Response
Public Comments and Township Response

Resolution for Township Adoption

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

1875 New Hope Street
Norristown, PA 19401
215 270-1975

May 30, 1990

Mr. David R. Fiorello, P.E.
Kohli & Associates, Inc
42 Lloyd Ave.
Malvern, PA. 19355

RE: Act 537 Plan
East Whiteland Township
Chester County

Dear Mr. Fiorello:

The Task/Activity Report submitted 1/26/90 & 4/26/90 on behalf of the East Whiteland Township Board of Supervisors has been reviewed and approved.

During plan preparation you are encouraged to consult with this office, especially upon screening of readily available needs documentation and preliminary screening of alternatives.

Enclosed is a checklist which needs to be completed during plan preparation. Please include a copy with the plan submission.

Proof of payment has been added as part of the Act 537 planning grant application requirements. When convenient please supply your estimate of Act 537 plan preparation cost. This dollar estimate is used by Harrisburg to manage the available funds.

Any questions please call.

Very truly yours,

Lee Gemmill
Sanitarian Sewage Specialist

cc: East Whiteland Township
Chester County Health Dept.
Chester County Planning Comm.
C.Rehm

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

P.O. 537-46

KOHLI & ASSOC., INC.
JAN 2 1991
RECEIVED

DATE: December 27, 1990

TO: John J. Finn
Florence D. Hunt
Glenn H. Cockerham

FROM: J. Donald Reimenschneider
Township Manager

Enclosed is a copy of the Draft 537 Plan, prepared by Surender Kohli.

Please submit to me any comments, questions or suggestions you might have.

JDR/jm
Encl.

cc: file
Surender Kohli

KOHLI AND ASSOCIATES, INC.

42 LLOYD AVENUE MALVERN, PA 19355 (215) 644-5591

SURENDER S. KOHLI, P.E.
PRESIDENT

CONSULTING ENGINEERS
PLANNERS
LANDSCAPE ARCHITECTS

september 5, 1991

J. Donald Reimenschneider, Manager
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355

Re: 537 PLAN - Final Draft

Dear Don,

Enclosed herein, please find eight (8) copies of 537 PLAN for your review and distribution. Please forward one copy each to Board members, Planning commision, Municipal authority, DER, and Chester county Planning commision for their review and comments.

If you have any furter question, please contact me.

Very truly yours,

Surender S. Kohli, P.E.
Township Engineer -
East Whiteland Township

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

DATE: September 6, 1991

TO: John J. Finn
Florence D. Hunt
Glenn H. Cockerham
Richard Orlow, Township Planning Commission
James Carr, Township Municipal Authority
Lee Gemmill, Department of Environmental Resources
George Fasic, County Planning Commission

FROM: J. Donald Reimenschneider
Township Manager

Enclosed is a copy of the Township 537 Plan for your review and comments.

SEP 09 1991
RECEIVED

JDR/jm
Encl.

cc: file
Surender Kohli

Ea[illegible] Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

PLANNING COMMISSION

PUBLIC WORK SESSION

12 September 1991

In Attendance: Chairman, Richard Orlow; Vice Chairman, Russell Smith
Members, Walter Reimann, Paula Kocher, Ronald Knabb
Also, Surender Kohli, Township Engineer
Don Reimenschneider, Township Manager

The following items were discussed in the Public Work Session:

1. Graphic Impressions - Alternative Plans for a Loading Dock
2. Immaculata College - Proposed Library
3. Rubino Estate - Proposed Zoning Amendment (Information was not available; the Applicant will make a presentation at the Public Meeting.)
4. Liberty Square Condominium Owners - Proposed Zoning Amendment
5. Great Valley School District - Lighting at Football Stadium
6. James F. Clark/Linda Reilly - Proposed Residential Subdivision Plan
7. The Commons at Great Valley - Final Subdivision Plan
8. Proposed 537 Plan
9. Proposed Historic Preservation Regulations and Proposed Amendment to Historical Commission Ordinance
10. Other - The Planning Commission discussed the possibility of changing the meeting dates back to Monday nights.

Comments from the Public Work Session meetings will appear in the Minutes of the Public Meeting.

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

PLANNING COMMISSION

PUBLIC MEETING

17 September 1991

In Attendance: Vice Chairman, Russell Smith
Members, Walt Reimann, Paula Kocher, Ronald Knabb
Also, Surender Kohli, Township Engineer
Don Reimenschneider, Township Manager
Floss Hunt, Township Supervisor

ANNOUNCEMENTS:

The Vice Chairman, Mr. Smith called the meeting to order in the absence of the Chairman. No announcements were made.

AGENDA:

1. Graphic Impressions - Alternative Plans for a Loading Dock
2. Immaculata College - Proposed Library
3. Rubino Estate - Proposed Zoning Amendment
4. Liberty Square Condominium Owners - Proposed Zoning Amendment
5. Great Valley School District - Lighting at Football Stadium
6. James F. Clark/Linda Reilly - Proposed Residential Subdivision
7. The Commons at Great Valley - Final Subdivision Plan
8. Malvern Meeting House
9. Proposed 537 Plan
10. Proposed Historic Preservation Regulations & Proposed Amendment to Historical Commission Ordinance
11. Other

1. GRAPHIC IMPRESSIONS - ALTERNATIVE PLANS FOR A LOADING DOCK

COMMENTS:

Plan SK-1 shows no change from previously rejected plan. Unloading trucks will block right of way.

Plan SK-2 shows enlargement of the building and encroachment into the front yard beyond what is allowed.

Suggestion was made to move truck dock inside building or along North side to avoid encroachment and obstruction.

ENGINEERING COMMENTS.

ACTION:

The Applicant will review Planning Commission comments and resubmit the application.

2. IMMACULATA COLLEGE - PROPOSED LIBRARY

N/Side of Campus, Zoned R-1

COMMENTS:

The Applicant is withdrawing the application which included the West entrance.

Ordinance #1700 B4 requires one parking space per 50 sq. ft. of visitor space. The parking plan needs justification. The following points were made regarding parking requirements:

a. There will be an increase of 100 seats over those in the existing library. Proposed plan will add only 34 additional parking spaces.

b. Existing library facility would be transformed into administrative office.

c. Computer access capability of the library could create additional traffic to the library by the general public, and by high school students, in particular.

d. Expected student use at night cannot be anticipated.

e. Stabilized enrollment is projected by Immaculata - between 1,000 and 1,200 in the Fall semester and into the forseeable future.

f. The major concern is the possibility of overflow parking onto non-parking areas.

The plan will not be considered as a Preliminary/Final Plan unless all criteria are met and zoning issues addressed.

Lighting may not be sufficient. Illumination information that has been furnished by the Applicant on the photometric indicates areas of unacceptable darkness.

a. The primary concern is for safety. Insufficient lighting exists along pathways and in parking areas.

b. Necessary and corrected light level should be indicated on the plan.

The circulation area should be widened to from 22-24 feet in the parking lot.

The Applicant has been granted a Special Exception by the Zoning Hearing Board regarding the height of the building (44½ ft.) This information must be indicated on the plan.

Overall Circulation - Improvements in traffic circulation are necessary. Proposed routing of traffic through the parking lot as indicated represents a clear threat to public safety. Additional King Road access is indicated.

Planning Modules were submitted; copies will be submitted to the Planning Commission. D.E.R. noted a sewage capacity issue. Sewer feasibility is required for approval.

ENGINEERING COMMENTS.

KOHLI AND ASSOCIATES, INC.

42 LLOYD AVENUE MALVERN, PA 19355 (215) 644-5591

SURENDER S. KOHLI, P.E.
PRESIDENT

CONSULTING ENGINEERS
PLANNERS
LANDSCAPE ARCHITECTS

October 13, 1992

J.D. Reimenschneider
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355

Re: **537 Plan**

Dear Don:

Enclosed herein, please find the revised pages (1, 15, 42, 53 and 59) for the above referenced project. Enclosed also is a copy of your transmittal letter dated 9/6/91 indicating to whom you have sent the 537 Plan for review. Please forward the revisions to all the parties as noted in your 9/6/91 letter for their review and records.

If you have any questions, please contact me.

Very truly yours,

Surender S. Kohli, P.E.
Township Engineer
East Whiteland Township

SSK/amg

cc: Thomas Kelly, Esq.

Board of Supervisors
CHARLES C. DISIPIO, Chairman
GLENN H. COCKERHAM, Vice-Chairman
FLORENCE D. HUNT, Member
J. DONALD REIMENSCHNEIDER
Township Manager
GARY R. LONG
Building Official &
Fire Marshal

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

EDWARD W. GALANTE
Tax Collector &
Public Works Director
G. ERIC REED
Codes Compliance Officer
VIRGINIA FENNIMORE
Assistant Manager
(Administration)

TO: Mr. Lee Gemmill
Department of Environmental Resources
Lee Park Complex
555 N. Lane
Conshohocken, PA 19428

Mr. George Fasic
Chester County Planning Commission
235 W. Market Street
West Chester, PA 19380

FROM: J. Donald Reimenschneider
Township Manager

RE: Township 537 Plan

DATE: October 22, 1992

Enclosed is a copy of revisions to the proposed Township 537 Plan for your review and comments.

JDR:mgp
Encl.

cc: file
Board of Supervisors
Surender Kohli, P.E. ✓
Thomas L. Kelly, Esquire
James Carr, Municipal Authority
Richard Orlow, Planning Commission

NOV 2 3 1992

DUANE, MORRIS & HECKSCHER

ATTORNEYS AT LAW

ONE LIBERTY PLACE
PHILADELPHIA, PA 19103
(215) 979-1000

FAX
(215) 979-1020

HARRISBURG, PA | WAYNE, PA
ALLENTOWN, PA | WILMINGTON, DE
MARLTON, NJ | BETHLEHEM, PA

COUNSEL

MORRIS DUANE
JOHN B. MARTIN
THOMAS R. REVAN
JOHN E. FELTON

MAURICE HECKSCHER
HAROLD W. EWOPE
HENRY T. REATH
JOHN A. CLARK

November 19, 1992

DIRECT DIAL: 979-1840

Mr. Glen Stinson
Water Quality Specialist Supervisor
Pennsylvania Department of Environmental Resources
Lee Park, Suite 6010
Conshohocken, PA 19428

RE: East Whiteland Township - Act 537 Plan Revision

Dear Mr. Stinson:

Pursuant to the Pennsylvania Sewage Facilities Act, 35 P.S. § 750.5(b) and 25 Pa. Code § 71.14, Immaculata College ("College") petitions the Pennsylvania Department of Environmental Resources ("Department") to order East Whiteland Township ("Township") to revise its official sewage plan since the plan is inadequate to meet the sewage disposal needs of the College.

The College avers that it occupies approximately 55 acres of property in the Valley Creek drainage basin in the southwest corner of East Whiteland Township, Chester County, which it leases from The Sisters, Servants of the Immaculate Heart of Mary. The College is located to the north of King Road, east of Ravine Road and west of Route 352. The adjacent properties are mostly residential with the exception of a densely wooded area located to the north of the campus.

At the present time, the Township's official sewage plan makes clear that the Township does not plan on servicing the southwest part of the Township including the College. Moreover, the public sewers do not extend into the immediate area of the College. The College presently treats its wastewater by means of a small sewage treatment plant ("STP") constructed in 1930 which discharges into an unnamed tributary of Valley Creek. Due to the advanced age of the STP and the stringent discharge standards required by NPDES Permit Number PA0050555, there have been compliance problems from time to time in the past. Although it is currently exploring modifications to the existing plant and alternative methods for handling its sewage, the College has established an ultimate goal of eliminating its effluent discharge into Valley Creek altogether and connecting to a public system.

On September 11, 1992, the College, by means of a Sewage Facilities Planning Module prepared by Roy R. Weston, Inc., requested that the Township revise its official plan. The College proposed to the Township that the STP be shut down and that: 1) a pipeline approximately 1,750 feet long be constructed to convey raw wastewater from the College to the nearest public sewer along Route 30 west of the intersection of Route 352 ("Alternative 1"); or 2) the public sewer system be extended so that a pipeline could be constructed to convey raw wastewater to the public sewer at the intersection of Frazer Road and Route 352 ("Alternative 2"). The College is committed to contributing reasonable financial resources to facilitate the construction of sewer lines to the public sewer system. By either Alternative 1 or 2, the wastewater would ultimately be treated at the Valley Forge Treatment Plant. In a letter dated October 23, 1992, James Carr, Chairman of the Township Municipal Authority, denied the College's request, stating that the Township's available capacity at the Valley Forge Treatment Plant had already been expended.

Copies of the College's September 11, 1992 Sewage Facilities Planning Module and the Township's October 23, 1992 response are enclosed. Also enclosed is a copy of NPDES Permit Number PA0050555. As indicated below, a copy of this Petition and its enclosures is being served today upon the Township by regular mail. A courtesy copy is also being sent to its solicitor, Mr. Kelly.

Please contact me if there is any other information that the Department requires on behalf of the College.

Sincerely yours,

David C. Toomey
for DUANE, MORRIS & HECKSCHER

WP3:[ADM.ADX8.DMMACULA]STINSON.LTR;1
DCT:mc
Enclosure
cc: East Whiteland Township c/o James S. Carr, Chairman, East Whiteland Municipal Authority w/ enc.
Thomas L. Kelly, Esq., Solicitor to East Whiteland Township w/ enc.
Michelle Coleman, Esq. w/ enc.
Timothy Jolly w/ enc.

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

December 14, 1992

Mr. Lee Gemmill
Department of Environmental Resources
Lee Park Complex
555 N. Lane
Conshohocken, PA 19428

RE: Township 537 Plan

Dear Mr. Gemmill:

To date, the Township has not received any comments from DER relative to our proposed 537 Plan Update. The document was submitted to your department last year, and revisions to the proposal were sent to you on October 22, 1992.

A status report will be appreciated.

Very truly yours,

J. Donald Reimenschneider
Township Manager

JDR:mgp

cc: file
Supervisors
Surender Kohli, P.E.
Thomas L. Kelly, Esquire

THE COUNTY OF CHESTER

PLANNING COMMISSION
235 West Market Street
West Chester, PA 19382
(215) 344-6285

December 22, 1992

J. Donald Reimenschneider, Township Manager
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355-1699

Re: Proposed revisions to the Act 537
Sewage Facilities Base Plan

Dear Mr. Reimenschneider:

The Chester County Planning Commission has completed its review of the above referenced revisions to the Official Sewage Facilities Plan of the township, as required by Act 537, the Pennsylvania Sewage Facilities Act.

It is the understanding of the Commission that the intent of the proposed changes is to protect the recreation facilities and important natural areas in the township from possible sources of water pollution and the negative environmental effects associated with the interbasin transfer of water. The Commission feels that this is an important goal for all of the municipalities in the County, and support your efforts to that end.

This review by Commission consists of two parts. The first part concerns technical issues associated with the proposed revisions which were submitted for review. The second part of the review contains comments relative to other parts of the Official Act 547 Plan of the Township. While these comments are not related to the specific revisions you are proposing, we believe that the submission of policy revisions to the municipal Act 537 plan other than new land development (Subchapter C) opens the entire Plan for comment.

Part 1. Comments on Proposed Revisions to Official Plan

Addition #1 to page 1: This appears to be a statement of policy to protect water quality. For clarification, the word debased (meaning to reduce in quality or value) could be added to the sentence to enhance the overall intent of the revision.

Example: Further, the plan has a major aim of integrating new sewage facilities into the community in ways that will not disrupt or debase other important facilities and amenities such as recreational or important natural areas.

Addition #2 on page 15: This appears to be a statement of policy regarding stream corridors and water quality. It may be more appropriate to place this statement under Purpose of the Official Plan rather than under Background Information. In either place, the wording could be changed slightly to read as a policy statement:

Example: Existing township parks embrace the stream corridors. As such,

stream corridors represent a major amenity to the community which merit special protection.

Addition #3 on page 42: The first sentence of the proposed revision basically outlaws direct stream discharges. Would indirect stream discharges, such as discharge to a wetland or marsh-pond-meadow system be acceptable? In addition, if the intent of the proposed revision is to protect and enhance water quality, then the Official Plan should also address the use of direct stream discharges from package plants serving a single residential dwelling.

The intent of the second sentence of the proposed revision concerning the watershed of origin needs to be made clearer. If the intent is to prevent interbasin transfer of water, then it should be stated that way.

Since much of East Whiteland is served by Philadelphia Suburban Water Company (PSWC), the issue of the watershed of origin becomes very complex. PSWC has multiple sources of water, many of which are outside of the township and the Valley Creek watershed. The watershed of origin would be more obvious if the proposed source of water is something other than the PSWC system.

The Commission believes it to be more appropriate to add a statement, similar to the one which follows, to the Purpose of the Official Plan in the INTRODUCTION along with the other proposed addition:

Example: ...amenities such as recreational or important natural areas. This includes preventing the interbasin transfer of water when the watershed of origin can be clearly determined.

Addition #4 on page 53: What is the definition of a "natural" treatment system? All treatment systems involve some type of "natural" biological processes using different types of bacteria. Do you mean "non-mechanical"? Even systems utilizing settling and aeration ponds usually have some mechanically driven compressors to pump air and oxygen into them. A description of what is meant by a natural treatment system is would help clarify this proposed revision.

Addition #5 on page 59: This part of the Official Plan describes the alternative treatment and disposal approach and the Environmental Impacts of choosing Alternative 6. The proposed revision calls for the construction of a central sewer system with tie-in to a new tertiary treatment facility with no direct stream discharge. As we previously mentioned, water could possibly be exported from the area, depending on its source. The rest of the sentence is not written as a possible impact. A possible rewording of the sentence we suggest is:

Example: Water may possibly be exported from the area, and the direct discharge with chlorination disinfection may adversely impact the Valley Creek or the Ridley Creek headwaters.

Part 2. Comments on East Whiteland Township Act 537 Base Plan

The Commission feels that the township should consider these additional amendments to its Official Sewage Facilities Plan before the proposed revisions are sent to PA DER for their review and action:

Population.

Page 18 of the Sewage Facilities Plan states that the County has projected a year 2000 population of 10,300. With the receipt of the 1990 Census figures, the Commission has re-evaluated the population projection developed during the 1980's. Based on the latest data, we now project the population of the township to be 9,780 by the year 2000. A copy of our Planning Bulletin #45 is enclosed for your reference.

On-Lot Sewage Disposal Maintenance Program.
The Commission continues to believe that an on-lot sewage management program with active municipal participation is an essential component of a sewage facilities plan. Education programs can be an important element in the overall Program, but a Program which requires proof of maintenance is the best way to extend the useful life of the system and help prevent public health hazards from malfunctioning systems. Our Planning Bulletin #42 is enclosed for your reference and consideration.

Study Areas.
Figure 12 which is affixed to the Official Sewage Facilities Plan shows the township divided into 7 different study or sewage areas. Of particular concern to the Commission are the areas designated as study area #7. This study area is divided into two sub-areas, one of which encompasses the western edge of the township (area 7B), and another encompassing the southwest corner of the township (area 7A). While these areas are not contiguous, the analysis of alternatives contained in the Plan evaluates these areas together as a single entity. It is the opinion of the Commission that these two areas should be considered separately and analyzed as separate study areas for the following reasons:

a)There is a geographical separation of these two sub-areas by an area shown to be in the current Valley Forge Service Area.

b)The sub-areas lie in different watersheds.

c)There are different land use and sewage facility issues in the two sub-areas which should be addressed and alternative sewage facilities options should be examined for all existing and proposed land developments within the sub-areas.

d)The potential for interbasin transfer of water to which the township has indicated its opposition.

In light of the fact that the Valley Creek is now being considered for special protection under the "Exceptional Value" status, there is the potential that PA DER would not issue a permit for a direct stream discharge from a new wastewater treatment plant in the watershed. It remains the responsibility of the townahip to continue to assess the sewage facilities needs of all current and future citizens and to identify and examine possible alternatives. The process of identifying, evaluating and selecting the best alternative for these areas would be accomplished more readily if the two sub-groups in Study Area #7 are separated into individual study areas.

If you have any questions regarding this review, please call me at 344-6285.

Very truly yours,

George W. Fasic
Director

GWF/RI/yzg
cc: Maria Goman, Health Department
Glen Stinson, PA DER
Charles C. DiSipio, Chairman, Board of Supervisors
Kohli and Associates, Inc.

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

CERTIFIED MAIL

TO: Mr. Lee Gemmill
Department of Environmental Resources
Lee Park Complex
555 N. Lane
Conshohocken, PA 19428

Mr. George Fasic
Chester County Planning Commission
235 W. Market Street
West Chester, PA 19380

FROM: J. Donald Reimenschneider
Township Manager

RE: Township 537 Plan

DATE: February 12, 1993

Enclosed is a copy of the revisions to the proposed Township 537 Plan, dated January 25, 1993, for your review and comments.

JDR:mgp
Encl.

cc: file
Board of Supervisors
Surender Kohli, P.E.
Thomas L. Kelly, Esquire

537 Plan

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. [X] Addressee's Address
2. [ ] Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. George Jasie
Chester City Planning Comm.
235 W. Strattick St.
West Chester, PA 19380

4a. Article Number
P 122 810 589

4b. Service Type
[ ] Registered [ ] Insured
[X] Certified [ ] COD
[ ] Express Mail [ ] Return Receipt for Merchandise

7. Date of Delivery
2-16-93

5. Signature (Addressee)
Jane P. Miller

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆ U.S.G.P.O.: 1992-307-530 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

537 Plan

SENDER:
- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. [X] Addressee's Address
2. [ ] Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Lee Skinnell
Dept of Environmental Res
Lee Park Complex
555 N. Lane
Conshohocken, PA 19428

4a. Article Number
P 122 810 590

4b. Service Type
[ ] Registered [ ] Insured
[X] Certified [ ] COD
[ ] Express Mail [ ] Return Receipt for Merchandise

7. Date of Delivery
FEB 15

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆ U.S.G.P.O.: 1992-307-530 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

88050

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

FIELD OPERATIONS - WATER QUALITY MANAGEMENT
Suite 6010, Lee Park
555 North Lane
Conshohocken, PA 19428
215 832-6130

KOHLI & ASSOC., INC.

MAR 2 4 1993

MAR 25 1993

RECEIVED

J. Donald Reimenschneider, Manager
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355

Re: Act 537 Plan Update - Draft Act 537
Request for Review
East Whiteland Township
Chester County

Dear Mr. Reimenschneider:

On September 16, 1991, October 26, 1992, and February 16, 1993 this office received your draft Official Sewage Facilities Plan Update of East Whiteland Township, Chester County, entitled Official Plan under the Pennsylvania Sewage Facilities Act (P.L. 1535, No. 537), as prepared by Kohli and Associates, Inc., dated August 12, 1991 and revised October 22, 1992. This plan is being submitted to this Department in accordance with the provisions set forth by Section 5 of the Pennsylvania Sewage Facilities Act and Chapter 71, the Administration of Sewage Facilities Program.

A preliminary review has indicated that the draft plan update is not in accordance with the provisions set forth in Chapter 71 for the following reasons:

First, you are hereby advised that this review is consultative only and not official. Also, this review is not a final action by the Department.

Second, there are several "paper items" which are missing from the submission. These items, listed below, must be provided when the "official" document is submitted to the Department.

The missing items include:

1. East Whiteland Township Planning Commission comments;

2. Chester County Health Department comments;

3. Proof of publication in a local newspaper;

8. On page 46, reference is made to Chapter 71 as being found in Appendix B. Appendix B is missing, however, an unofficial copy of Chapter 71 was found in Appendix A. Enclosed is an official copy of Chapter 71.

9. On page 47, Table 6, uses footnotes to clarify items in the table; however, notes 1 and 4 do not have a corresponding table item. Please clarify.

10. On page 48, the subsection "Delineation of Study Areas" references Figure 14; however, Figure 14 is missing. The "List of Figures" found in the Table of Contents ends with Figure 12. These items must be addressed.

11. On pages 53 thru 59, under the sub-heading "Sewage Alternatives", the criteria used in the evaluation are not the same criteria outlined in the original plan-of-study;

12. On page 53, the sub-heading "Sewage Alternatives" is missing a letter designation. It appears that it should be designated "B" when comparing it to the original plan-of-study outline.

13. On page 60, the sub-heading "Institutional Alternatives Necessary to Implement the Recommended Official Plan" should be designated "C", because of comment No. 1 above;

14. On page 60, the sub-heading "Relationship of the Township's Official Plan to Other Plans" should be designated "D" because of comments No. 1 and No. 2 above;

15. In between pages 61 and 62 are portions of pages numbered A-6 thru A-13 which appear to belong to Appendix A, which is an out-of-date copy of the Pennsylvania Sewage Facilities Act. Enclosed is the most recent version of Act 537 for your use;

16. The sub-headings "Description" on page 61 and "Rationale for the Selected Sewage Facilities Plan" on page 62 are not the same sub-headings used in the original plan-of-study;

17. The sub-headings found under the "Recommendations" section use letters A thru C, whereas the original plan-of-study used numbers in designating the sub-headings;

MAR 2 3 1983

If you have any questions concerning this advisory review, please feel free to contact me.

Very truly yours,

JOHN M. VENEZIALE
Water Quality Sanitarian

ENCLOSURE

cc: Chester County Planning Commission
Chester County Health Department
Kohli and Associates, Inc.
Planning Section
Re 30 (GJC)43.12/.1

THE COUNTY OF CHESTER

PLANNING COMMISSION
Government Services Center • Suite 270
601 Westtown Road
West Chester, PA 19382-4537

George W. Fasic, Executive Director

April 1, 1993

(215) 344-6285 • FAX: (215) 344-6515

John Veneziale, Water Quality Sanitarian
PA Department of Environmental Resources
555 North Lane
Lee Park, Suite 6010
Conshohocken, PA 19428

Re: Private Request to Revise Official Sewage Facilities Plan Immaculata College
East Whiteland Township
Chester County

Dear Mr. Veneziale:

Per your letter dated January 19, 1993, and as required by Chapter 71, Section 71.14(d), the Chester County Planning Commission is submitting the following comments concerning the above captioned Private Request.

Upon review of the information supplied to you by the College, it is our understanding that East Whiteland Township has denied the request from Immaculata College to revise the Official Sewage Facilities Plan (Official Plan) of the Township to provide public sewage facilities to the College. The proposed plan revision would allow the College to connect to these facilities for the purposes of eliminating its own outdated wastewater treatment plant and associated discharge to an unnamed tributary of the Valley Creek.

We believe that it would be in the best interest of all of the people who work and live in East Whiteland if the Township and the College were to work together to choose the best course of action that will provide for the long term sewerage needs of the College. By working together to revise the Official Plan, alternative methods can be examined, and the most environmentally and financially responsible plan can be selected.

The Planning Commission supports the Private Request of Immaculata College to have the Township help them provide for their sewage facilities needs by revising the Official Plan of the Township.

If you have any questions, please feel free to contact me.

Very truly yours,

George W. Fasic
Secretary

GWF/RI/krp
cc: Immaculata College, East Whiteland Township

THE COUNTY OF CHESTER

PLANNING COMMISSION
Government Services Center • Suite 270
601 Westtown Road
West Chester, PA 19382-4537

COMMISSIONERS
Karen L. Martynick, Chairman
Joseph J. Kenna
Andrew E. Dinniman

George W. Fasic, Executive Director

(215) 344-6285 • FAX: (215) 344-6515

April 2, 1993

J. Donald Reimenschneider
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355-1699

Re: Proposed Revisions to the Act 537
Official Sewage Facilities Plan

Dear Mr. Reimenschneider:

The Chester County Planning Commission has completed its review of the above referenced revisions to the Official Sewage Facilities Plan (Official Plan) of the Township, as required by Act 537, the Pennsylvania Sewage Facilities Act.

The changes you have made blend into the current version of the document very well. Table 3, now entitled LAND DEVELOPMENT IN EAST WHITELAND TOWNSHIP SINCE 1987 TO JANUARY 1991, could be updated to include all land development projects proposed or under construction through January of 1993.

Our review of materials recently submitted by the Department of Environmental Resources concerning Immaculata College finds that the current version of the Official Plan does not adequately address the past, present and future status of non-municipal sewage treatment and disposal systems in the Township. There is mention of the five privately owned package plants that currently exist in the Township, but these systems are not indicated on any of the maps contained in the Official Plan, and discussion is inadequate as to how these systems relate to, or could be integrated with, the sewerage needs of all who work and live in the Township. These relationships should be explored through the consideration of various institutional alternatives necessary to implement recommendations in the Official Plan (paragraph B. on page 60). The Official Plan should provide for institutional and management arrangements in which the Township becomes involved in the design, construction and operation of privately owned sewage facilities. An individual on-lot sewage disposal management program is one possible institutional arrangement. As a reference, we are enclosing the chapter on Wastewater System Management from the West Vincent Township official plan.

The Commission feels that by incorporating similar new management provisions in its Official Plan, the Township will be more responsive to the sewage facility needs of everyone in the community.

If you have any questions regarding this review, please call me at 344-6285.

Very truly yours,

George W. Fasic
Secretary

GWF/RI/krp
cc: Maria Goman, Health Department
Glenn Stinson, PA DER
Charles C. DiSipio, Chairman, Board of Supervisors
Kohli and Associates, Inc.

KOHLI & ASSOC., INC.
APR 07 1993
RECEIVED

East Whiteland Township

209 CONESTOGA ROAD
FRAZER, PENNSYLVANIA 19355-1699

June 30, 1993

Mr. Glenn K. Stinson
Sewage Facilities Consultant
Department of Environmental Resources
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428

RE: Act 537 Plan Update

Dear Mr. Stinson:

By letter dated March 24, 1993, John Veneziale provided comments concerning the Township's Act 537 Plan Update.

Mr. Veneziale advised us that the review was consultative only and not official.

Surender Kohli, Township Engineer, is including the revisions suggested by your department in the Plan Update.

Should the revised document be sent to you for official review before or after it is adopted by the Board of Supervisors?

Your advice will be appreciated.

Very truly yours,

J. Donald Reimenschneider
Township Manager

JDR:mgp
cc: file
Surender Kohli, P.E.
Thomas Kelly, Township Solicitor

EAST WHITELAND TOWNSHIP PLANNING COMMISSION

209 Conestoga Road

Frazer, PA 19355

Ronald A. Knabb, Chairman
Paula Kocher, Vice Chairman

Walter Reimann
Richard D. Orlow
Anne Brown
Erik Hetzel

PUBLIC MEETING

March 23, 1994

In Attendance: Chairman, Ronald A. Knabb, Vice Chairman, Paula Kocher
Members: Walter Reimann; Erik Hetzel, Richard D. Orlow
Township Engineer: Surender Kohli

Agenda:

1. Reorganization of Planning Commission
2. McCoy Cockerham
3. Hudson Oil Company Property
4. Parcel XXXVIII G.V.C.C. West
5. Other Business
   A. Proposed Parking Regulations
   B. Schedule Meeting and Interview Applicants
   C. Miscellaneous

1. McCoy Cockerham

Description:
Located on the west side of Planebrook Road., near Route 202 & Frame Avenue. Zoned C & R2, Residential District. Sketch Plan.

Proposed:
Reconfigured 3 lot subdivision and proposed construction of a building within the commercial district. Several variances would be required as a result of the proposed (self imposed).

Comments:
The Planning Commission advised that it could not support this variance requests. The applicant will resubmit to subdivide into two parcels with north parcel having access to Planebrook Road.

Action:
Applicant will withdraw application and resubmit later.

2. Hudson Oil Company

Description:
Route 30, next to laundromat, Zoned C2

Proposed:
Proposed one story bank building

Comments:
Nonconforming lot. Applicant meets set-back requirements and layout, except proposal indicates paving within 1/2 of the front yard set-back. Need attention to detail of traffic flow, and frontage along Route 30. Suggested revision to circulation patterns moving building to west, drive-up to west end, parking to east end.

Action:
Suggested revision to plan and resubmit as sketch. Submit drawing to show Route 30 frontage from shopping center to laundromat.

3. Parcel XXXVII G.V.C.C. West

Description:
Technology Drive, Lapp Road, north east corner

Proposed:
Plans for 2 story research office facility, 28,000 sq. ft. per floor.

3. Parcel XXXVIII G.V.C.C. West Continued

Proposed:
1-8 tenants, multi tenant lab building. Bio med, bio tech. Access grade level, to south, access upper level, to north.

Comments:
Advised that zoning does not permit parking in front yard. Planning Commission feels that building can be sited to the south along Lapp Road, with the parking to the north, accessing the upper floor. The Planning Commission cannot support the variance but suggested that relief may be received from the Zoning Board. Further the applicant was advised that, to date, the original road bed of Lapp Road has not been legally abandoned.

Action:
Applicant is to resubmit a redesign if he wishes to pursue the plans.

4. Reorganization of Planning Commission

Ronald A. Knabb was elected Chairman and
Paula Kocher Vice Chairman

5. A. Proposed Parking Regulations

Richard Orlow submitted an updated draft. Planning Commission reviewed and commented on regulations, up to Landscaping and will resume at next workshop meeting.

5. B. Schedule Meeting and Interview Applicants

Four applicantions have been received and interviews will be scheduled for March 31, 1994.

1. Alice Maloney
2. Dean McGowan
3. Gary Samms
4. Charles Bernhardt III

5. C. Miscellaneous

537 Plan
The Planning Commission reviewed the updated 537 Plan as proposed by the township engineer. It was noted that the plan contained comments by the Chester County Planning Commission and the D.E.R. Accordingly, the Planning Commission recommended approval of the updated 537 Plan as dated February 16, 1994.

5. C. Miscellaneous Continued

Charleston Oaks
Planning Commission recommended approval and directed the chairman to sign the proposed planning module, illustrating the extension of a 50' sewer line into East Whiteland Township.

Ms. Kocher abstained from participation in the discussion.

Meeting Adjourned at 9:45

Respectfully Submitted,

Ronald A. Knabb, Chairman

RAK:ew

Pennsylvania Department of Environmental Protection

Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428

April 8, 1996

Southeast Regional Office

610-832-6130
Fax 610-832-6259

KOHLI & ASSOC., INC.

APR 15 1996

RECEIVED

J. Donald Reimenscheider, Manager
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355

Re: Act 537 Plan Update
East Whiteland Township
Chester County

Dear Mr. Reimenscheider:

We have completed our review of your municipality's updated official sewage facilities plan entitled "East Whiteland Township Act 537 Plan" as prepared by Kohli and Associates, Inc., last revised May 2, 1995. The review was conducted in accordance with the provisions of the Pennsylvania Sewage Facilities Act.

Approval of the Plan is hereby granted.

The Plan provides for the:

1. Expansion of the sewer service area tributary to the Valley Forge Sewer Authority Wastewater Treatment Facility. As shown on Figure 12 of the plan, Study Areas 1-1990 Valley Forge Sewer Authority Service Area, 3-1991-1996 Valley Forge Sewer Authority Service Area, 4-1996-2001 Valley Forge Sewer Authority Service Area, 5-2001-2006 Valley Forge Sewer Authority Service Area, and 6-Beyond 2006 Valley Forge Sewer Authority Service Area are designated as the sewer service area tributary to Valley Forge Sewer Authority Wastewater Treatment Plant. The sewer service area expansion will require an additional 1.96 MGD average annual capacity for a total of 3.01 MGD average annual capacity at the Valley Forge Sewer Authority Wastewater Treatment Plant. To provide for the anticipated future needs of the sewer service area tributary to the Valley Forge Sewer Authority Wastewater Treatment Facility, further planning is required to acquire additional capacity in the Wilson Road Pump station and Force Main.

2. Continued service of Study Area 2-1990 Ridley Creek Service Area, as shown on Figure 12, by the East Goshen Township Ridley Creek Wastewater Treatment Plant.

3. Future evaluation of Study Areas 5 and 6 for applicability of alternative disposal methods.

4. Study area 7a may utilize alternate disposal methods involving on-lot systems and/or treatment facilities subject to further study of the area.

5. Study area 7b may be serviced by West Whiteland Township's proposed Spray Irrigation sewage treatment plant subject to further planning by West Whiteland and East Whiteland Township. If Study Area 7B can not be served by the proposed West Whiteland system, then the alternatives available to service the area including construction of a new treatment facility and service by Valley Forge Sewer Authority Wastewater Treatment Facility will be further studied.

6. An on-lot sewage management maintenance program of public education through the township newsletter.

If you have any questions regarding this matter, please feel free to contact me at the above number.

Sincerely,

Joseph A. Feola
Regional Manager
Water Management

cc: Chester County Health Department
Chester County Planning Commission
Ms. Ulan
Kohli & Associates, Inc.
Planning Section
Ms. Moore
Division of Municipal Facilities and Grants
Re 30 (RN)71-20

Appendix C

Resolution for Township Adoption

EAST WHITELAND TOWNSHIP

CHESTER COUNTY, PENNSYLVANIA

RESOLUTION NO. 19-95

A RESOLUTION ADOPTING THE "OFFICIAL PLAN UNDER THE PENNSYLVANIA SEWAGE FACILITIES ACT" (ACT 537 PLAN)

WHEREAS, East Whiteland Township is a member of the Valley Forge Sewer Authority, and

WHEREAS, East Whiteland Township entered into certain Sewage Facility Grant Agreements with the U. S. Environmental Protection Agency (EPA), and agreed to prepare a local sewer plan for the Township as required by Section 5 of the Pennsylvania Sewage Facilities Act, 35 P.S. Section 750.5, and

WHEREAS, the Pennsylvania Department of Environmental Resources, the Chester County Health Department, and the Chester County Planning Commission have reviewed and commented on the Act 537 Plan, and

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of East Whiteland Township adopt the "Official Plan Under the Pennsylvania Facilities Act" (Act 537 Plan) as amended.

BE IT FURTHER RESOLVED that said local sewer plan be implemented by East Whiteland Township to control future sewage disposal systems in the Township in conjunction with the Pennsylvania Department of Environmental Resources, the Valley Forge Sewer Authority, the Chester County Health Department, and the East Whiteland Township Municipal Authority.

ADOPTED this 12th day of June, 1995.

BOARD OF SUPERVISORS
EAST WHITELAND TOWNSHIP

Glenn H. Cockerham, Chairman

ATTEST:

Charles C. DiSipio

Township Secretary

Stuart Levin

APPENDIX D

SOILS PROFILES

Soil Group A

BRANDYWINE - The Brandywine soils are well-drained soils which have developed over gneiss and pegmatite. The topsoil is grayish-brown while the subsoil is yellow to brown. The Brandywine soils tend to be dry and are characterized by their extremely thin B horizon. Generally, these soils are suitable for on-lot sewage disposal.

EDGEMONT - The Edgemont soils are moderately deep well-drained soils of the upland. These soils have developed mainly over quartz schist and quartzite. The topsoil is a dark grayish brown loam while the subsoil is a yellowish brown or strong brown loam to silty clay loam. The Edgemont soils have been found on occasion by the Department to be mottled but are generally suitable for standard subsurface sewage disposal systems.

GLENELG CHANNERY SILT LOAM - This soil is a moderately deep well-drained soil of the upland. The soils have developed over granite, gneiss and mica schist and have a brown topsoil and strong brown subsoil. The Glenelgs generally are suitable for standard subsurface sewage systems.

MANOR LOAM - The Manor Loam soils are shallow well-drained soils of the upland. The Manor Loams have developed primarily over mica, schist and gneiss. They have a dark brown surface layer while the subsoil is yellowish-red to yellowish-brown. Quite often the Manor Loams have a greasy feel due to the abundance of mica in the soil. Except in areas where the subsoil is extremely stony, the Manor Loams are generally suitable for conventional on-lot sewage disposal systems.

Soil Group B

CONESTOGA - The Conestoga series consists of deep well-drained soils of the uplands. The soils develop from calciferous schist, micaceous limestone or marble. The surface layer is dark brown silty loam. The subsoil is dark yellowish-brown or yellowish-brown silty clay loam. The Conestoga series have been found on occasion by this Department to be unsuitable for standard subsurface sewage disposal systems due to high hazard of groundwater pollution through limestone solution channels.

HAGERSTOWN - The Hagerstown series consists of deep well-drained soils that are underlain by limestone. The surface layer is dark brown silt loam. The subsoil, a strong brown silty clay loam, has limestone fragments scattered through it. The subsoil is blocky and prismatic in structure. The soil is underlain by yellowish-red silty clay loam that contains partially weathered fragments of quartz and limestone. The Hagerstown series have been found on occasion by this Department to be unsuitable for standard subsurface sewage disposal system due to high hazard of groundwater pollution through limestone solution channels.

HOLLINGER SILT LOAM - This is a deep well-drained soil of uplands. It is very similar to the Hagerstown soil but is somewhat shallowed to bedrock. In some places, it is underlain by dolomitic limestone instead of calcareous schist.

Soil Group D

CHEWACLA - The Chewacla soils are deep, moderately well-drained soils of the flood plains. These soils consist of alluvial deposits washed from upland soils. The parent materials were mainly gneiss, schist, quartzite, anorthosite and quartz monzonite. Being flood plain soils, these soils are unsuitable for on-lot sewage disposal.

CONGAREE - The Congaree Silt Loam is a deep, well-drained soil of flood plains. It is generally located along streams and is subject to occasional flooding. It is unsuitable for on-lot sewage disposal.

LINDSIDE - The Lindside series consists of deep, moderately well-drained soils on flood plains. The soils formed in sediments washed from areas underlain by limestone. The surface layer of these soils is very dark grayish brown. The subsurface is brown or yellow red and is mottled with light brown or gray. Due to a high flooding hazard, this soil is not suitable for any subsurface disposal.

MELVIN - The Melvin series consists of deep poorly-drained soils of flood plains. Their surface layers are dark gray while their subsoils are light brownish gray to dark yellowish gray mottled silty clay loams. The Melvin soils are found near streams that drain areas of Hagerstown and Conestoga soils. As flood plain soils, the Melvin series is unsuitable for subsurface sewage disposal.

WEHADKEE - The Wehadkee series consists of deep poorly drained soils on flood plains. The soils generally have formed from material washed from upland soils underlain by schist, gneiss, quartite, anorthosite, quartz, monzonite and granite. Being flood plain soils, these soils are unsuitable for any on-lot disposal.

Soil Group E

BEDFORD - The Bedford series consists of deep, moderately well-drained soils. The soils are underlain by marble and other lime-bearing rock. The surface layer is grayish brown silt loam, and the subsoil is yellowish brown, light silty clay loam. Faint mottling is generally found at a depth of 28 to 32 inches. Due to shallow depth to water table, the Bedford soils are generally suitable for only elevated sand mounds.

GLENVILLE - The Glenville soils are deep moderately well-drained to somewhat poorly drained soils of the upland. These soils have developed mainly over granite, schist and gneiss. The topsoil is a very dark brown to dark grayish brown silt loam, while the subsoils are yellowish-brown to strong brown mottled silty clay loam to heavy silt loam. Due to the shallow depth of the water tables, the Glenville soils are generally suitable for only elevated sand mounds.

Soil Group F

CROTON - The Croton series consists of poorly drained soils of the uplands. The soils are underlain by triassic red and gray shale and sandstone. These soils have a surface layer of dark brown silt loam that is mottled with gray. The subsoil is a mottled yellow brown and red brown silty clay loam. The claypan occurs generally at a depth between 15 and 22 inches. This claypan keeps the subsoil waterlogged much of the time. Due to this high water table, this soil series is unsuitable for any subsurface disposal systems.

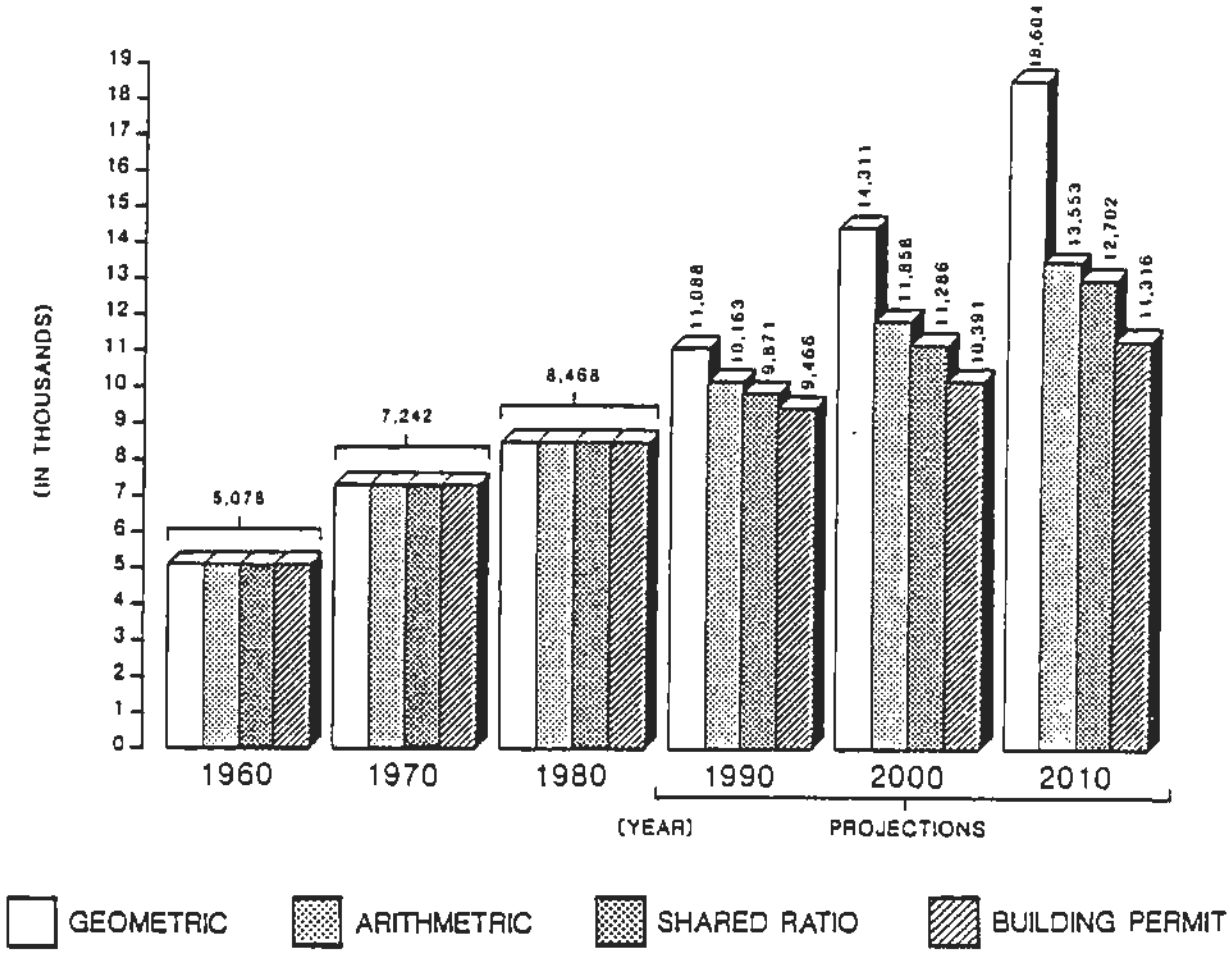
GUTHRIE - The Guthrie series consists of deep, poorly drained soils on limestone or calcareous schist. The surface layer is very dark gray silt loam, and the subsoil is mottled with light brownish gray, greenish gray and brown. Mottling, beginning in the surface layer, becomes more prominent with increasing depth. The water table is high during most of the year. Due to high water tables, this series is unsuitable for subsurface sewage disposal.

LAWRENCE - The Lawrence soils are deep somewhat poorly drained soils of the uplands which have developed over dolonite and limestone. The topsoil is a dark grayish-brown silt loam. The subsoil is a yellow-brown silty clay loam that is mottled at 14 inches below the ground surface. The depth to the bedrock is often four to six feet below the surface. Generally, the Lawrence soils are unsuitable for any type of on-site subsurface sewage disposal system.

WORSHAM - The Worsham series consists of deep poorly-drained soils of the uplands. Their surface layer is dark grayish brown or black silt loam while the subsoil is a brownish-yellow a strong-brown clay loam that is mottled with pale gray or yellow mottles. Worsham soils develop primarily over granite, quartz, schist, gneiss and gabbro. Generally, they are waterlogged most of the year which makes them unsuitable for on-site sewage disposal.

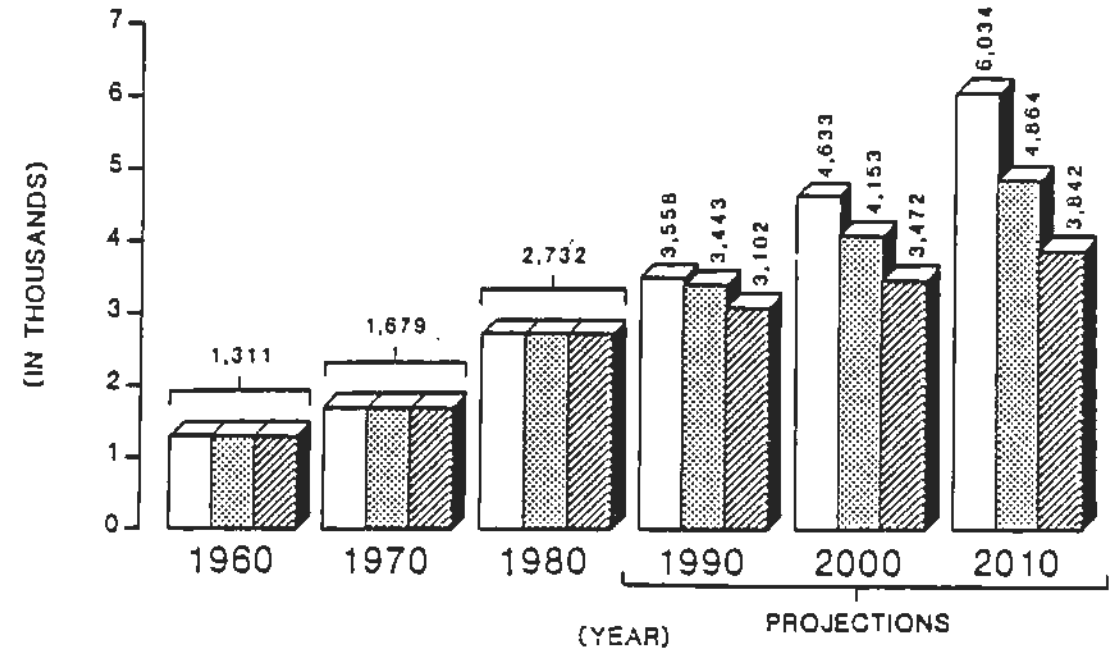
MADE LAND - consists of fill material composed mostly of B and C horizon material. In this location, the material consists primarily of soil which develops from Wissahickon Schist and adjacent rock units.

FIGURE 4-2: POPULATION PROJECTIONS 1960-2010



Source: CCPC, 1986.

FIGURE 4-3: HOUSING UNIT PROJECTION 1960-2010



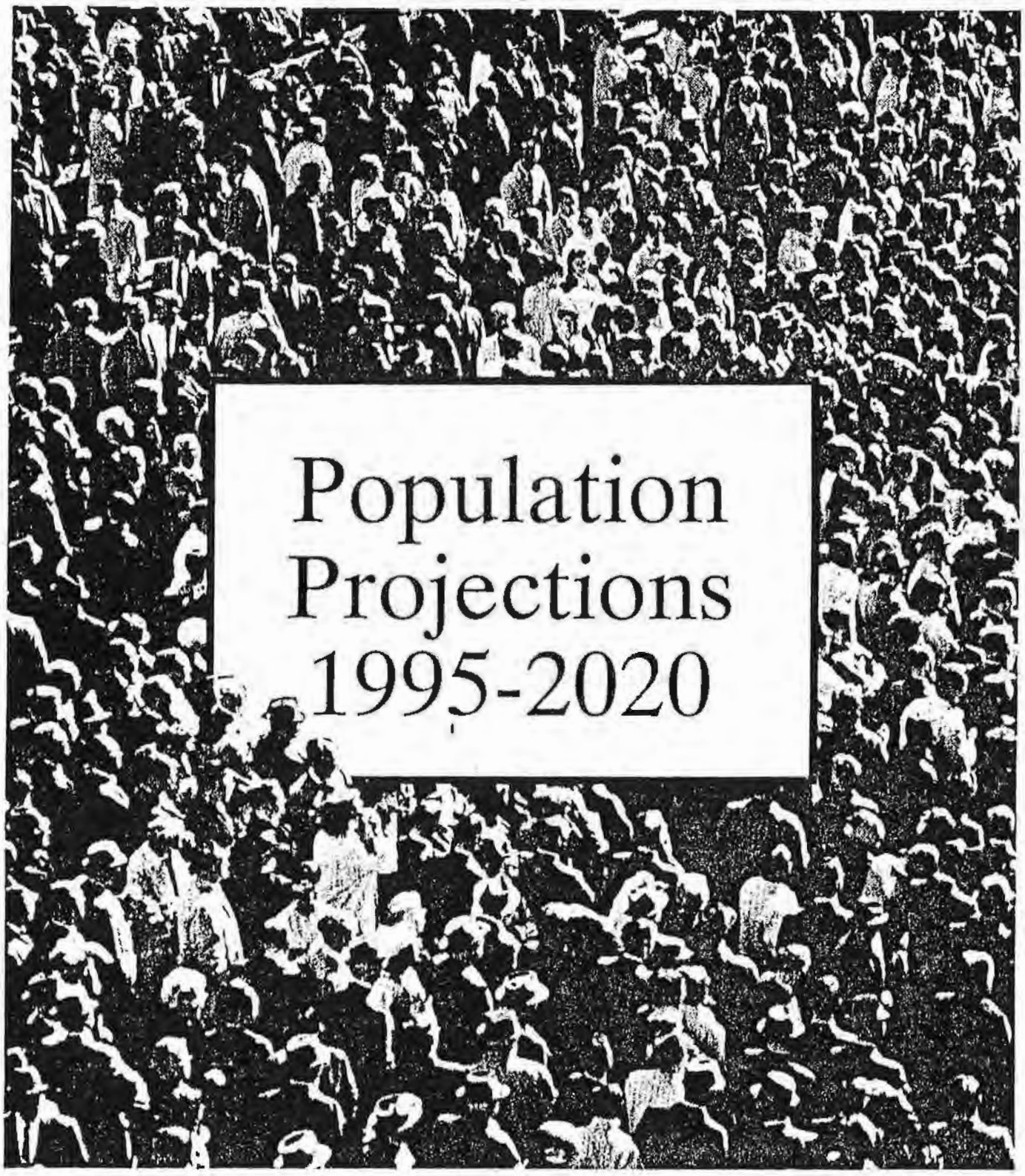
Source: CCPC, 1986.

CCPC BULLETIN

PLANNING BULLETIN #45

CHESTER COUNTY PLANNING COMMISSION

JULY 1992



Population Projections 1995-2020

County Level Projections, 1995-2020

Background:

The staff of the Chester County Planning Commission has prepared population projections to the year 2020. As part of the preparation a review of the 1980 population projection activity by Chester County was made. In the 1980s, projections were developed for the County and its 73 municipalities to the year 2010. With the release of 1990 U.S. Census data, it was necessary update and advance the projections based upon the new data. Similar efforts are underway in neighboring counties and at the Delaware Valley Regional Planning Commission.

The Chester County projections in the 1980s included consideration of separate efforts from a population research group at Pennsylvania State University and the planning staff of the Delaware Valley Regional Planning Commission (DVRPC). The Chester County Planning Commission staff monitored the population work of both organizations. After careful review of the projects in relation to the Commissions own efforts, CCPC accepted the work of the Penn State research team. The methodology and the assumptions set by this team were judged to be comprehensive and thorough; all measures of population change (fertility, mortality and migration) were thoroughly explained. Although Chester County staff also used the cohort component methodology, we accepted the Penn State calculations because their data base was more refined than that available to our staff. Although Penn State's team and DVRPC's team each used the cohort-component methodology, the Penn State researchers benefitted because they had access to the most recent detailed information on birth, death, and migration trends. Since Penn State only provided projections to 2000, DVRPC provided the County projections to 2010.

A comparison of the projections for 1990 prepared during the 1980s reveals that those projections are generally in an acceptable range when examined against the census of 1990. The 1990 projection total was 359,057 compared to the actual census count of 376,396; a numerical under projection of 17,339, only a 4.8 percent error.

A population projection is not a prediction, a forecast, or a target. It is a measurement of a future population that would exist if particular fertility, mortality and migration conditions prevail in the future. Valid projections carry no value judgments, and are not the result of policy decisions or directed goals. Projections by the Chester County Planning Commission are based upon expected trends in fertility, mortality and migration.

Methodology:

In developing projections to 2020, the Chester County Planning Commission again made use of the cohort-component method. The cohort-component method uses the three elements of population change (births, deaths, and net migration) to project separately 5 year age cohorts for both males and females. The method employs general fertility rates, Census survival rates, and migration rates for each age cohort to carry the population forward every 5 years.

The fertility component of this method utilized the general fertility rate (GFR). The GFR is the annual expected number of live births per 1,000 women aged 15-44. The GFR for these projections was set as 55.0. This figure was decided on by examining past birth rate trends in Chester County and recent national fertility trends.

Once the number of births are projected the sex ratio is calculated. Using an average of past trends in Chester County, the number of males born for each projected year was calculated at 0.513 of all births, with females being the difference, at 0.487 of all births.

For estimating mortality, these projections used the most recent five-year Census survival rates that were published by the U.S. Bureau of the Census in 1984. The rates were projected for each age cohort for both males and females. The Census survival rate is calculated by taking the number of persons in an age cohort and "surviving" them five years

later into the next cohort. For example, if there are 100 persons in the age cohort 5-9, and the the Census survival rate is .98, the number of persons five years later (which would be the cohort 10-15) would be 98. It should be noted that Census survival rates decrease with age.

Net migration is calculated by using survival rates and base populations. Using the example above, if the survived population is 98, but the base population is 110, then it can be assumed that there was a net migration of 12 persons (110 minus 98). The migration rate is then calculated by dividing the number of migrants by the survived population. In this case the result would be .1224.

For these projections, migration rates were averaged for the years 1970-1975, 1975-1980, 1980-1985, and 1985-1990. Because five year rates are used the total population in 1975 and 1985 had to be estimated. The population for these years were calculated by examining residential building permits during each respective decade. For instance, approximately 49 percent of the building permits issued between 1970 and 1980 were issued between 1970 and 1975. Therefore, the population in 1975 was assumed at 49 percent of the total increase between 1970 and 1980 plus the 1970 population. The 1985 population was calculated the same way. In this case the mid-decade population was approximately 33 percent of the total change plus the 1980 population. See Table 1 for age-cohort five year projections countywide.

Table 1
Chester County Population Projections, 1995-2020

Males

Age	1990	1995	2000	2005	2010	2015	2020
0-4	14,401	13,670	13,620	13,960	13,720	13,850	13,650
5-9	13,737	15,590	14,890	14,760	15,020	14,860	14,700
10-14	12,576	14,500	16,700	15,720	15,580	15,860	15,690
15-19	13,179	12,200	14,440	16,210	15,260	15,130	15,390
20-24	12,917	12,500	11,650	13,710	15,400	14,500	14,370
25-29	14,890	13,480	12,940	12,160	14,320	16,080	15,130
30-34	16,941	16,590	15,150	14,430	13,560	15,960	17,920
35-39	16,251	18,560	18,490	16,610	15,820	14,870	17,510
40-44	15,040	16,910	19,660	19,260	17,310	16,500	15,510
45-49	12,186	14,970	17,170	19,620	19,220	17,280	16,460
50-54	9,323	11,860	14,840	16,770	19,180	18,790	16,900
55-59	8,313	8,740	11,410	14,010	15,840	18,120	17,760
60-64	7,781	7,440	8,000	10,300	12,670	14,340	16,410
65-69	6,647	6,680	6,510	6,940	8,980	11,060	12,530
70-74	4,684	5,430	5,580	5,390	5,790	7,500	9,270
75-79	2,907	3,590	4,230	4,350	4,240	4,570	5,950
80-84	1,622	1,950	2,470	2,920	3,030	2,970	3,220
85+	1,107	1,260	1,610	2,080	2,610	2,990	3,220
Total	**184,412**	**195,900**	**209,400**	**219,200**	**227,600**	**235,000**	**241,600**

Table 1 (Continued)
Chester County Population Projections, 1995-2020

Females

Age	1990	1995	2000	2005	2010	2015	2020
0-4	13,571	12,770	12,750	12,950	12,820	12,680	12,750
5-9	13,157	14,590	13,860	13,710	13,930	13,790	13,640
10-14	11,757	14,050	15,750	14,800	14,640	14,870	14,720
15-19	12,876	11,810	14,450	15,820	14,870	14,710	14,950
20-24	13,570	12,520	11,650	14,070	14,500	14,480	14,320
25-29	15,055	14,040	12,900	12,050	14,560	15,940	14,980
30-34	17,550	16,530	15,570	14,160	13,240	15,990	17,510
35-39	16,771	18,910	18,170	16,790	15,270	14,270	17,240
40-44	15,487	17,170	19,780	18,620	17,200	15,650	14,630
45-49	12,325	15,330	17,300	19,610	18,460	17,060	15,520
50-54	9,186	11,980	15,130	16,850	19,100	17,980	16,620
55-59	8,271	8,740	11,610	14,430	16,070	18,220	17,150
60-64	8,308	7,760	8,300	10,930	13,600	15,150	17,180
65-69	7,657	7,720	7,300	7,760	10,230	12,730	14,180
70-74	5,893	6,950	7,120	6,670	7,110	9,380	11,670
75-79	4,489	5,140	6,220	6,200	5,920	6,310	8,320
80-84	3,175	3,790	4,460	5,380	5,490	5,160	5,500
85+	2,886	3,250	4,080	4,810	5,590	6,360	6,840
Total	**191,984**	**203,100**	**216,400**	**225,600**	**232,600**	**240,700**	**247,700**
County Total	**376,396**	**399,000**	**425,800**	**444,800**	**460,200**	**475,700**	**489,300**

Note: Projections are rounded to the nearest tenth for each age cohort and to the nearest hundredth for the total population.

Municipal Level Projections, 2000-2020

Methodology:

Projecting population for municipalities involved a separate process than projecting the County population. Since the cohort-component method of projecting population involved a number of variables not available on the municipal level and since most municipalities do not have a large population base to work with, a different approach to municipal projections was carried out.

Determining projections for municipalities in Chester County was a two-step process. The first step involved the calculation of unadjusted figures through use of the Bureau of the Census ratio-shared method. This method involved computing the average ratio of a municipality's population to the total County population in previous Census years. Further, a 1990 population for each municipality was calculated using the average ratio-shared method from 1960, 1970 and 1980. These numbers were then compared with actual 1990 Census figures and a percent difference between these two was calculated. For projections, the numbers calculated using the average ratio-shared method were multiplied by the percent difference in order to determine the unadjusted population projections for each municipality.

The second step of this process involved adjustment to these projections by looking at a number of variables for each municipality. These variables included past population trends, existing land use, known development proposals, transportation access, and other factors that could affect population change. Unlike the previous step this one does not contain calculations but includes general determinations about a municipality's future.

For instance, older, well-established, suburban municipalities are expected to gain fewer residents than those which are not as built-up and under development pressure. Further, the boroughs and the City of Coatesville in Chester County will likely experience limited increases in population due the built-out nature of these communities. Though some residential uses could be built through in-fill development or conversions, any substantial population increases could be offset by a decreasing household size. An exception to this would be the Borough of Elverson where large parcels of vacant land are being proposed for residential development. Increases in population through these developments would substantially change an already small population base.

Large percentage gains in population are projected for those municipalities where major development is expected. These include municipalities in south-central Chester County which have experienced growth pressure from the Wilmington metropolitan area and western municipalities where continuted westward movement of development along with the anticipated completion of the Exton Bypass could considerably increase development pressure.

Small population projections are anticipated for areas of limited potential growth. Factors affecting these municipalities include minimal highway access, environmental restrictions, low density zoning, and restricted land such as an agricultural easment. The results of this process are demonstrated in Table 2.

Table 2
Chester County Municipal Population Projections, 2000-2020

	Census			*Projections*	
	1980	*1990*	*2000*	*2010*	*2020*
Chester County	**316,660**	**376,396**	**425,800**	**460,200**	**489,300**
Atglen	669	825	960	990	1,010
Avondale	891	954	980	1,010	1,030
Birmingham	1,584	2,636	3,120	3,390	3,640
Caln	9,639	11,997	12,950	13,320	13,610
Charlestown	2,770	2,754	2,990	3,190	3,410
Coatesville	10,698	11,038	11,310	11,350	11,390
Downingtown	7,650	7,749	7,980	8,020	8,060
East Bradford	3,219	6,440	9,670	11,770	12,850
East Brandywine	4,690	5,179	6,830	8,310	9,560
East Caln	2,187	2,619	3,190	3,540	3,680
East Coventry	4,085	4,450	4,980	5,560	6,030
East Fallowfield	3,962	4,433	4,990	5,510	5,850
East Goshen	10,021	15,138	16,390	16,710	16,950
East Marlborough	3,953	4,781	5,410	6,260	6,830
East Nantmeal	1,222	1,448	1,750	2,190	2,850
East Nottingham	3,111	3,841	4,270	5,140	5,910
East Pikeland	4,410	5,825	6,070	6,520	6,910
Easttown	9,064	9,570	9,760	9,860	9,960
East Vincent	4,739	4,161	4,850	5,980	6,860
East Whiteland	8,468	8,398	9,780	10,180	10,490
Elk	750	1,129	1,450	1,820	2,150
Elverson	530	470	820	990	1,110
Franklin	1,920	2,779	3,850	4,370	5,020
Highland	1,244	1,199	1,290	1,360	1,440
Honey Brook Boro.	1,164	1,184	1,220	1,270	1,290
Honey Brook Twp.	4,182	5,449	6,570	7,180	7,570
Kennett	4,201	4,624	5,050	5,540	6,030
Kennett Square	4,715	5,218	5,410	5,520	5,650
London Britain	1,546	2,671	3,870	5,340	6,650
Londonderry	1,293	1,243	1,380	1,510	1,640
London Grove	3,531	3,922	5,860	7,240	8,090
Lower Oxford	2,836	3,264	3,790	4,310	4,920
Malvern	2,999	2,944	3,020	3,040	3,070
Modena	672	563	580	590	610
New Garden	4,790	5,430	6,550	7,650	8,730
Newlin	725	1,092	1,210	1,390	1,570

Table 2 (Continued)
Chester County Municipal Population Projections, 2000-2020

	Census		*Projections*		
	1980	*1990*	*2000*	*2010*	*2020*
New London	1,312	2,721	3,840	5,490	6,910
North Coventry	7,164	7,506	8,190	8,650	8,950
Oxford	3,633	3,769	3,890	3,940	3,980
Parkesburg	2,578	2,981	3,090	3,110	3,150
Penn	1,888	2,257	3,180	3,950	4,360
Pennsbury	2,604	3,326	3,850	4,190	4,350
Phoenixville	14,165	15,066	15,570	15,870	16,170
Pocopson	2,331	3,266	3,930	4,280	4,570
Sadsbury	2,398	2,510	3,040	3,760	4,760
Schuylkill	5,993	5,538	5,710	5,870	5,990
South Coatesville	1,359	1,026	1,210	1,250	1,280
South Coventry	1,556	1,682	1,820	1,880	1,950
Spring City	3,389	3,433	3,470	3,490	3,510
Thornbury	1,323	1,131	1,280	1,410	1,580
Tredyffrin	23,019	28,028	28,950	29,370	29,750
Upper Oxford	1,332	1,615	1,890	2,210	2,530
Upper Uwchlan	1,805	4,396	6,010	6,720	7,350
Uwchlan	8,364	12,999	15,780	16,210	16,470
Valley	3,598	4,007	4,660	5,170	5,640
Wallace	1,881	2,541	2,830	3,140	3,510
Warwick	2,350	2,575	2,960	3,380	3,970
West Bradford	7,343	10,406	13,140	14,390	14,960
West Brandywine	4,068	5,984	7,550	8,730	9,970
West Caln	4,958	6,143	7,420	8,210	8,970
West Chester	17,435	18,041	18,120	18,270	18,340
West Fallowfield	2,122	2,342	2,730	3,150	3,660
West Goshen	16,164	18,082	19,350	19,450	19,550
West Grove	1,820	2,128	2,230	2,280	2,330
West Marlborough	941	874	910	980	1,060
West Nantmeal	1,766	1,958	2,290	2,730	3,330
West Nottingham	2,030	2,183	2,420	2,760	3,120
West Pikeland	1,536	2,323	2,890	3,240	3,510
West Sadsbury	1,728	2,160	2,670	3,220	3,960
Westtown	6,774	9,937	10,610	11,230	11,840
West Vincent	1,992	2,262	3,110	3,750	4,340
West Whiteland	9,581	12,403	15,270	16,580	17,060
Willistown	8,284	9,380	9,790	9,970	10,150

PLANNING BULLETINS

Previous Issues

1. HIGHWAY PRIORITIES (June 1976)
2. TRAFFIC OPERATION PROGRAM TO INCREASE CAPACITY AND SAFETY (July 1976)
3. HOMEOWNERS ASSOCIATIONS (January 1979)
4. POPULATION PROJECTIONS 1980-2000 (August 1980)
5. CURRENT HOUSING ISSUES (January 1981)
6. SUBDIVISION ACTIVITY - 1980 (May 1981)
7. CENSUS OF POPULATION AND HOUSING - 1980 (December 1981)
8. SUBDIVISION ACTIVITY - 1981 (March 1982)
9. STORMWATER MANAGEMENT PRACTICES (September 1982)
10. ZERO LOT LINE HOUSING (September 1982)
11. CENSUS HIGHLIGHTS (January 1983)
12. ACT 247 ACTIVITY - 1982 (February 1983)
13. CENSUS - SEX AND AGE CHARACTERISTICS - 1980 (April 1983)
14. CENSUS - HOUSING HIGHLIGHTS - TENURE, RENT, VACANCY - 1980 (April 1983)
15. CENSUS - MINORITIES - 1980 (September 1983)
16. CENSUS - INCOME PROFILE - 1980 (September 1983)
17. CENSUS - TRANSPORTATION TO WORK AND PLACE OF WORK (March 1984)
18. SCHOOL CLOSINGS AND BUILDING RE-USE (August 1984)
19. CENSUS - OCCUPATION AND INDUSTRY (April 1984)
20. ACT 247 ACTIVITY - 1983 (March 1984)
21. CENSUS - EDUCATION PROFILE (December 1984)
22. ACCESSORY APARTMENTS IN SINGLE FAMILY HOMES: ISSUES AND REGULATIONS (May 1984)
23. HOUSING OPPORTUNITIES FOR THE ELDERLY (July 1984)
24. HOUSING AFFORDABILITY - CHESTER COUNTY 1983 (July 1984)
25. MIXED USE ZONING (October 1984)
26. HOUSING SUPPLY CHANGE 1970-80 (January 1985)
27. COMMUNITY LIVING ARRANGEMENTS (April 1985)
28. POPULATION PROJECTIONS 1990-2000 (December 1985)
29. SLIDING SCALE ZONING (January 1986)
30. BANNERS AND TEMPORARY SIGNS (January 1986)
31. CENSUS OF POPULATION - SINGLE PARENT AND SINGLE PERSON HOUSEHOLD - 1970-1980 TRENDS (November 1986)
32. ELDERLY - CHARACTERISTICS AND TRENDS (August 1987)
33. WETLANDS (August 1987)
34. MICROWAVE ANTENNAS (December 1987)
35. POPULATION PROJECTIONS - 1990-2010 (May 1988)
36. HOUSING TRENDS (December 1988)
37. (Revised) STREAM WATER QUALITY CLASSIFICATIONS (July 1991)
38. MPC ACT 170 AMENDMENTS, 1990 (March 1990)
39. HOUSING COSTS (September 1990)
40. SPRAY IRRIGATION (November 1990)
41. PLANNED RESIDENTIAL DEVELOPMENT (December 1990)
42. ON-LOT SEWAGE MANAGEMENT PROGRAMS (October 1991)
43. AN INTRODUCTION TO WELLHEAD PROTECTION FOR CHESTER COUNTY MUNICIPALITIES (November 1991)
44. HOUSING ALTERNATIVES FOR SPECIAL NEEDS GROUPS (January 1992)

IMMACULATA COLLEGE (CONTINUED)

Note from Mr. Reimenschneider - The Applicant can agree with a condition that at a future date they will conform to the entrance requirements.

ACTION:

The Applicant will grant an extension to the Planning Commission so that they can consider the modifications.

The Applicant expressed concern regarding delaying the plan because of the PennDOT approval to the West entrance. The Planning Commission requested Mr. Reimenschneider to send the plan for the proposed West entrance to PennDOT for approval.

The Applicant will include the proposal of a West entrance for a conditional decision, pending PennDOT approval.

3. RUBINO ESTATE - PROPOSED ZONING AMENDMENT

COMMENTS:

No information was available during the Public Work Session. A presentation was made during the public meeting by Mr. James McErlane during the Public Meeting.

See Addendum for partial transcript of presentation and Q & A session.

ACTION:

The Planning Commission will take no action at this time. This presentation is for information only.

4. LIBERTY SQUARE CONDOMINIUM OWNERS - PROPOSED ZONING AMENDMENT

COMMENTS:

This was tabled at the request of the Applicant.

5. GREAT VALLEY SCHOOL DISTRICT - LIGHTING AT FOOTBALL STADIUM

COMMENTS: (From Public Work Session)

Pole height proposed is 90 feet.

Impact on surrounding property.

Applicant is required to file for Special Exception through Zoning Hearing Board.

ENGINEERING COMMENTS.

GREAT VALLEY SCHOOL DISTRICT (CONTINUED)

Attached Addendum is a partial transcript of a Q & A session in which audience participation is included.

ACTION:

The Applicant will apply to the Zoning Hearing Board for Special Exception.

6. JAMES F. CLARK/LINDA REILLY - PROPOSED RESIDENTIAL SUBDIVISION PLAN

Swedesford Rd., across from K.D. Markley School

COMMENTS:

If access road crosses over a flood hazard area, the Applicant will have to apply to the Zoning Hearing Board.

Application has been made to PennDOT regarding the access road.

A Planning Module will have to be submitted. Perc feasibility has to be demonstrated.

ENGINEERING COMMENTS.
Suggest a realignment of access to avoid flood hazard area.

ACTION:

The Applicant will review the Planning Commission comments and resubmit.

7. THE COMMONS AT GREAT VALLEY - FINAL SUBDIVISION PLAN

COMMENTS:

Property is primarily located in Charlestown Township. Six acres of the property are located in East Whiteland Township.

Special Exception was granted by the Zoning Hearing Board so the Applicant could comply with Charlestown Township setback requirements.

The traffic light escrow will have to be made in East Whiteland Township. East Whiteland is required to get the permit.

ENGINEERING COMMENTS.

ACTION:

The Planning Commission voted unanimously to approve the Final Subdivision Plan, subject to Engineering Comments.

8. MALVERN MEETING HOUSE - LAND DEVELOPMENT SKETCH PLAN

Zoned C-4

COMMENTS:

Applicant plans to construct office/storage shed.

Parking requirements have not been defined to include requirements for the office, in addition to existing parking requirements. Applicant needs to demonstrate parking conformity of entire lot with zoning requirements.

ACTION:

The Applicant will review Planning Commission comments and resubmit the Preliminary Plan.

9. PROPOSED 537 PLAN

COMMENTS:

ENGINEERING COMMENTS.

ACTION:

The Planning Commission is in receipt of a draft of the Proposed 537 Plan. It is under consideration and review by the Planning Commission.

A copy will be available in the Township building. Public comments can be received at the Planning Commission meetings, as well as the Supervisors meetings.

10. PROPOSED HISTORIC PRESERVATION REGULATIONS AND PROPOSED AMENDMENT TO HISTORICAL COMMISSION ORDINANCE

COMMENTS:

In the Public Work Session, along with two members of the Historical Commission, the proposed ordinance was reviewed at great length, and numerous revisions were noted.

Time consideration issues may have to be discussed with Ron Nagle.

ACTION:

The proposed amendment to the Historical Commission Ordinance is undergoing further revisions. It should be available in the near future.

The meeting was adjourned at 10:50 P.M.

THE COUNTY OF CHESTER

PLANNING COMMISSION
235 West Market Street
West Chester, PA 19382
(215) 344-6285

October 28, 1991

John J. Finn, Chairman
East Whiteland Township
Board of Supervisors
9 Woodcrest Lane
Frazer, PA 19355

Re: Act 537 Plan Update

Dear Mr. Finn:

The Chester County Planning Commission has completed its review of the above referenced revision to the Official Sewage Facilities Plan, as required by the Pennsylvania Sewage Facilities Act.

The Commission offers the following comments on the proposed plan update:

1. The Commission believes the relationship between soil suitability over carbonate formations and on-lot systems needs further exploration. To our knowledge DER does not consider soils over carbonate formations completely unsuitable for on-lot disposal systems. Soil descriptions for Conestoga and Hagerstown soils in Appendix D indicate that these soils have been found "on occasion" to be unsuitable. There may be additional siting requirements, but on-lot systems are not completely restricted from these areas. Thus, the statement in Section B on page 62 that, "...72% of the Township is comprised of soils unsuitable for on-lot sewage disposal", may be misleading. There may also be opportunities for surface land application on these areas that could be explored.

2. The Commission promotes clear relationships between zoning, soils, and sewage disposal methods. Study area 7A shows this relationship between suitable soils, R-1 zoning and the use of on-lot disposal system. The large area of R-1 zoning in the central and northwestern part of the Township falls within study areas 4A, 4B, 5B, 6C, 6D, and 6E. All of these study areas are slated for public sewer extension. Considering comment #1 above, the Commission believes these areas could also use on-lot disposal or other land application methodology.

3. The Commission believes that an analysis of alternatives is important for environmental protection. It is reasonable that study areas #1 and #2 do not require an alternatives evaluation because they are existing service areas. However, only in study area #7 does the plan address several alternatives for evaluation. Study areas #3, 4, 5, and 6 should include an evaluation of alternatives. It seems inappropriate to us to require Valley Forge Sewer Authority to provide this analysis later.

4. The Commission believes that an on-lot sewage management program is an essential component of a sewage facilities plan. On-lot systems can last indefinitely if they are adequately maintained, meaning routine pumping and inspection. This can only occur through a Township program that requires, at least proof of maintenance. Education material, while important, cannot ensure that all systems will receive the required maintenance. It is likely that many on-lot system problems can be prevented if systems are pumped every three years. The Commission believes that a management program as is described in Section 71.73 of Title 25 PA Code Chapter 71, DER Rules and Regulations should be included in the plan.

5. Given the Valley Crossing development, which has been granted preliminary approval for a portion of study area 7B, how will the selected alternative, land application, be implemented based on the plans for the site? Although we strongly support this method of disposal, its implementation is not clear, especially since newspaper articles are reporting a different form of disposal for the development. The Commission believes that the Act 537 revision for the Valley Crossing development should be integrated into this Township plan update rather than have each, the plan update and the revision for new development, presented to DER for separate review. This is particularly important since the plan update and the proposed facility for Valley Crossing are significantly different in approach to sewage disposal.

These comments are offered prior to formal action by the Planning Commission. If the Commission should have additional comments on the proposed revision, they will be forwarded to you.

If you have any questions regarding this review, please call me at 344-6285.

Very truly yours,

George W. Fasic
Secretary

GWF/MLS/krp
cc: Maria Goman, CCHD
Glenn Stinson, PADER
J. Donald Reimenschneider
Kohll and Associates, Inc.

1991

United States Department of the Interior

NATIONAL PARK SERVICE

VALLEY FORGE NATIONAL HISTORICAL PARK
P. O. Box 953
VALLEY FORGE, PA 19481-0953

N REPLY REFER TO:

L76

October 29, 1991

Mr. John J. Finn
Chairman, Board of Supervisors
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355

Dear Mr. Finn:

The National Park Service (NPS) supports East Whiteland Township in its efforts to provide environmentally sound sewage disposal systems. Most of the Township is already serviced by the Valley Forge Sewer Authority (VFSA). East Whiteland's new 537 plan recommends that sewer service be extended to most areas in the Township where development has been proposed. We believe this is an acceptable way to manage wastewater as the VFSA has provided excellent service to surrounding townships while having minimum impact on the Schuylkill River, in which it discharges. This system is preferable to a proliferation of onsite sewage package plants constructed by private landowners and operated by a number of contractors.

The new 537 Plan excludes a large piece of the Township, designated as Area 7, from sewer service. Area 7 is really two tracts, 7A and 7B. Tract 7A in the southwest section of the Township is mostly in the Ridley Creek watershed, tract 7B in the northwest corner is chiefly in the Brandywine watershed. Wastewater management alternatives proposed for 7A and 7B include both on-land disposal and stream discharge. It is our view that on-land disposal systems, such as spray irrigation, are far less threatening to the environment than stream discharge.

One of the alternatives (No. 6) listed for tract 7B calls for the construction of an onsite sewage package plant with discharge into Valley Creek of 500,000 gallons per day of tertiary treated effluent. Valley Creek's confluence with the Schuylkill River is in Valley Forge National Historical Park. Anything that affects Valley Creek eventually makes its way downstream and impacts the park's riparian and aquatic resources. Valley Forge NHP is the largest landowner on Valley Creek, encompassing about four miles of streambank. Approximately four million people visit Valley Forge each year. Many are attracted to Valley Creek, one of the park's prime natural resources. It is a Class A coldwater fishery, a superb trout stream. We believe that no further degradation of Valley Creek should be permitted. We hope that East Whiteland Township will consider the concerns of the National Park Service when it revises its 537 plan for Area 7B.

On-land disposal systems are recommended in the new 537 Plan and seem to be given first priority where it is not feasible to tie in with VFSA. We agree with this approach. A major drawback to this type of facility is the amount of land required. It is safe to predict that most builders would tend to avoid a disposal system which might inhibit development of the greatest amount of land. However, we think the Township could negotiate with developers to set aside sufficient acreage for efficient on-land sewage disposal facilities to service new subdivisions.

Generally, the National Park Service supports the Township's new 537 Plan which recommends the extension of VFSA's sewer service and the use of on-land disposal systems. NPS believes that no further degradation of Valley Creek should occur. The stream is a wonderful regional resource shared by two counties, four townships, and a national park. It ought to be viewed as an aquatic treasure to be protected from developmental pressure. If we manage the stream corridor well, it will remain an important asset for our community, but, if we are so shortsighted that we sacrifice the creek to short term gains, then the public will be poorly served. The National Park Service urges all of us who use Valley Creek to implement management strategies which will protect and enhance the creek's natural resources.

Sincerely,

Warren D. Beach

Warren D. Beach
Superintendent

cc: Ms. Hunt
Mr. Cockerham
Mr. Fasic
Mr. Charles Rehm
Ms. Maria Goman

RESOLUTION NO. 21-92

EAST WHITELAND TOWNSHIP

A RESOLUTION AUTHORIZING
THE VALLEY FORGE SEWER AUTHORITY
TO PREPARE A REGIONAL ACT 537 PLAN

WHEREAS, the General Assembly by its Act 537 of January 24 1966, (P.L. 1535, 35 P.S. 750.5 et. seq.), requires each municipality to submit to the Department of Environmental Resources an officially adopted plan for sewage, and revise it periodically, and

WHEREAS, the Board of Supervisors of East Whiteland Township has initiated an individual Act 537 Plan update to determine the Township's sewerage needs and to delineate future sewer service areas,

NOW THEN THEREFORE BE IT RESOLVED, that the Board of Supervisors of East Whiteland Township does hereby authorize the Valley Forge Sewer Authority (VFSA) to proceed with the preparation and submission of a Regional Act 537 Plan. Said Regional Act 537 Plan will summarize projected public sewer needs, as documented in the individual approved Act 537 Plan updates prepared by each of the constituent municipalities. Alternatives for collection/conveyance and wastewater treatment facilities will be analyzed and a recommended plan prepared.

By this Resolution, the Valley Forge Sewer Authority is hereby appointed as the lead agency for the purposes of applying for and receiving any grant monies applicable to the cost of preparation of said Regional Act 537 Plan.

ADOPTED this 13th day of July 1992.

BOARD OF SUPERVISORS
EAST WHITELAND TOWNSHIP

Charles C. DiSipio, Chairman

Glenn H. Cockerham

Florence D. Hunt

ATTEST:

KOHLI AND ASSOCIATES, INC.

42 LLOYD AVENUE MALVERN, PA 19355 (215) 644-5591

SURENDER S. KOHLI, P.E.
PRESIDENT

CONSULTING ENGINEERS
PLANNERS
LANDSCAPE ARCHITECTS

July 23, 1992

Mr. J. Donald Reimenschneider
East Whiteland Township
209 Conestoga Road
Frazer, PA 19355

Thomas L. Kelly, Esq.
17 E. Front Street
P.O. Box 1048
Media, PA 19063-0848

Re: 537 Plan Revision

In Accordance with our meeting of July 17, 1992 enclosed herein please find revised page numbers 1, 15, 42, 53 and 59 for the East Whiteland Township 537 Plan. If the above revisions are satisfactory, please advise and I will transmit the copies to the East Whiteland Township Board of Supervisors, the Chester County Planning Commission, the Chester County Health Department and the Department of Environmental Resources for their records. Please note that these revisions will be incorporated when we revise the total document which will take place upon receiving the comments on the current draft document from all of the appropriate agencies.

If you have any questions, please contact me.

Very truly yours,

Surender S. Kohli

Surender S. Kohli, P.E.
Township Engineer
East Whiteland Engineer

SSK/amg